

HAWAII is located almost in the center of the **Pacific Ocean** between 19 and 22 degrees north latitude. It is the southernmost state in the United States. It has its own **time zone** and does **not** practice daylight savings time. During the summer, it's 6 hours behind Eastern Standard Time, and during the winter it's 5 hours behind Eastern Standard Time.

HOW THE HAWAIIAN ISLANDS WERE FORMED (or Hawaii Shield Volcanoes).

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The newest and most accepted theory about how the Hawaiian Islands were formed is that they were formed by what is known as Plate Tectonics. According to this theory, the surface of the Earth is broken into large plates. The size and position of these plates change over time. The edges of these plates, where they move against each other, are sites of intense geologic activity--like earthquakes and volcanoes.

The Hawaiian Islands are part of a Pacific plate that is slowly moving in a northwesterly direction towards the Asian continent. Beneath the Big Island of Hawaii, they have identified a major vent or hot spot which emits magma from time to time, building mountains from the bottom of the ocean floor over millions of years until they finally emerge above the surface and become islands. The tiny island of

Kure is the oldest of the chain, and the underwater volcano Loihi is the youngest. The volcanoes that made up the Hawaiian chain are known as shield volcanoes. Shield volcanoes are rounded, dome-shaped structures that resemble, in profile, the shields of medieval warriors. These volcanoes are made of an accumulation of very mobile lava. Erupting at high temperature, the lava runs swiftly from the vent, spreading widely and making a cone of gentle slope.



These shield volcanoes generally erupt along cracks in the volcano's side. Movement within the Earth's crust tears open these cracks, forming what would be known as a rift zone. The magma then exploits these areas, and the lava comes out in a fountaining effect.

When an eruption is over, the lava remaining in the crack or fissure hardens into a wall like mass called a dike. Generally, dikes are about a half-yard in width and may extend hundreds of feet in length. On Maui, prominent dikes appear in the Ukumehame Canyon in West Maui and in the summit depression of Haleakala. Where streams have cut canyons in old rift zones, you can sometimes count as many as four hundred dikes in a mile distance. Shield volcanoes produce a lot of lava. Haleakala alone contains enough lava material to make one hundred Mt. Fujiyama's in Japan.



Fun Facts.

STATE OF HAWAII

Nickname: The Aloha State
Statehood: August 21, 1959
Capital: Honolulu
Animal: Humpback Whale
Flower: Pua Aloalo (Hibiscus)
Song: "Hawaii Pono"
Colors: Red, White & Blue

- ✓ Hawaii is the only state in the nation that grows coffee.
- ✓ Sugar was first produced commercially in Hawaii in 1835.
- ✓ Hawaii is the only state in the nation with a royal palace.
- ✓ Hawaii is the longest chain of islands in the world.
- ✓ There are no snakes or billboards in Hawaii.
- ✓ **Oahu is the home of Aiea the only U.S. city spelled with all vowels.**
- ✓ The total land mass of the Big Island grows by hundreds of acres every year due to

Kilauea Volcano.



The Hawaiian Flag has 8 red, white, blue stripes and British Union Jack.

Hawaii, America's only island state, may be considered the richest place on earth if you count wealth in terms of physical or emotional well-being rather than in material possessions. The possibilities for relaxing and adventure are endless. In this section of the book, we would like to give you some pointers to get you started, and after that, you're sure to find a lot of interesting things to do on your own.

There are six main islands in Hawaii: Oahu, The Big Island, Maui, Molokai, Lanai, and Kauai. Each of these islands is unique and all have the potential for family fun and adventure. In this section we will provide a brief review of the Hawaiian language and customs, some plants and sea life, and a few fun facts. Then we'll move to "our own back yard"...the beautiful Island of Oahu and then on to Schofield Barracks. We hope you find the information included here both enlightening and entertaining.



Fun Fact...

Did you know that the wettest place on earth is in Hawaii? It's on Kauai at Mt. Waialeale...it has rain 350 days a year for an average of 444" of annual rain fall.



A replica of
Demigod Maui's
"Magic Hook".

STORY OF MAUI (The legend of how the Islands were formed.)

Many thanks to Maui Cheetah for allowing us to use the following story. Copyright @ 1995-2001 by Maui Cheetah, Kihei, Maui, Hawaii. Used with permission. For more great stories go to <<<http://www.mauigateway.com/~rw/cheetah.htm>>>.

Eons ago, there was born the Demigod Maui. His father was the holder of the heavens and his mother was the guardian of the path to the Netherworld. Maui was the only one of the children who possessed the powers of magic and miracles.

Maui was the smallest of the family. He had the quickest of minds and had an extremely rascally nature about him. Maui would take any advantage of both his friends and the gods in his quest to fulfill his schemes.

It is said that Maui was not a good fisherman. His brothers were much more skilled. They would often laugh at him for his poor success. In revenge, Maui used his cunning to fill his boat with catch at his brothers expense. Maui would position his boat so that when one of his brothers began to pull in a fish, he would distract them so that he could pull his line across theirs stealing their fish.

Maui's brothers could only marvel at their younger brother. However they soon caught on and refused to take him fishing with them. Maui's fortune turned against him. His mother then sent him to his father to obtain a magic hook.

"Go to your father. There you will receive the hook called Manaiakalani, the hook fastened to the heavens. When the hook catches land, it will raise the old seas together."

Maui returned with his hook. He joined his brothers in another fishing expedition. They jeered him and threw him out of the boat. When they returned, they were empty handed. Maui berated them. He stated that if they had allowed him to join them, they would have had better success. The brothers decided to allow him to join them in their canoe for another chance.

They paddled far into the deep ocean and threw their lines overboard. To their dismay, they only caught sharks. The brothers ridiculed Maui asking "Where are the fish you promised?"

Maui then rose and threw his magical hook into the ocean. Chanting a spell of power, he commanded the hook to catch the Great Fish.

At once the sea began to move. Great waves rose around the canoe. Maui commanded his brothers to paddle with all their might and to not look back. For two days, Maui held taut the magic line and hook while his brothers kept paddling furiously. Suddenly from below the depths arose the tops of great mountains in a series of peaks that broke the surface of the ocean. Maui reminded his brothers to keep paddling mightily. Maui pulled mightily against the line and forced the peaks even farther out of the water.

One of his brothers then broke the command and gazed back in awe at the sight of the rising land. He stopped paddling and quickly the magic line began to slacken in Maui's hands. Before he could call out to his brothers, the line snapped and the magic hook was lost forever beneath the sea.

Maui chastised his brothers for their failure to paddle as he had commanded. "I had endeavored to raise a great continent but because of your weakness I have only these islands to show for all my efforts."

And this is how the Islands of Hawai'i came to be...



Photo courtesy CL Steenfott



The Language. English is the language of Hawaii, but because the Plantations brought so many different ethnic groups to Hawaii you will hear a variety of different languages and dialects as you travel about. English, Japanese, and Korean, are just some of the major languages spoken here. Most of the staff at the hotels and shops in the tourist areas, such as on Waikiki are multilingual and unless your language is very obscure you should be able to communicate just fine. The only problem you might encounter with the language is the pronunciation of city and street names, but the following rules and a little time may help.

Hawaiian is a Polynesian dialect and only has 12 letters compared to the English 32. The vowels are the same, A, E, I, O, U, but there are only seven conso-

nants and they are H, K, L, M, N, P, and W.

PRONUNCIATION:

Vowels are pronounced: **A**—"ah" (father) not "ay" (hay), **E**—"ay" (vein) not "ee" (see), **I**—"ee" (peep) not "eye", **O**—"oh" (own), and **U**—"oo" (too). Most often vowels are pronounced separately although sometimes they are pronounced together.

RULES:

1. Every word must end in a vowel.
2. Every consonant must be followed by at least one vowel.
3. Every syllable must end in a vowel.
4. Divide into syllables for easy pronunciation: Ka/la/ni/a/na/o/le.

SOME COMMON WORDS AND PHRASES

AKAMAI – Smart, clever
ALA – Road, path. (e.g., Ala Moana)
ALOHA – Hello, goodbye, love, or a as a toast
ALOHA KAKAHIKA – Good morning
ALOHA AHIAHI – Good evening
ALOHA KAKOU – Greetings, everybody
AUWE – Oh!, Alas
HALE – House, building
HAMAKUA – Place name for a direction
HAOLE – Caucasian person, formerly, any foreigner
HAUOLI LA HANAU – Happy Birthday
HAUOLI MAKAHIKI HOU – Happy New Year
HULA – Classic dance form of Hawaii
KAI – Sea
KANE – Man
KAPU – Taboo, forbidden, keep out
KAUKAU – Food
KEIKI – Child
KIPA MAI – You're welcome
KOKUA – Help
LANAI – Porch, balcony, veranda
LEI – Strand of flowers, leaves, shells, nuts
LUA – Restroom
LUAU – Hawaiian feast
MAHALO – Thank you

MAHALO NUI - Thanks a lot
MAHIMAHU – Dolphin family fish
MAIKAI – Fine
MAKAI – Toward the sea
MALIHINI – Stranger, newcomer, guest
MAUKA – Towards the mountains
MELE – Song, chant, or poem
MELE KALIKIMAKA – Merry Christmas
MUUMUU – A long, loose-fitting dress
OHANA – Family. A close group
OKOLE MALUNA – Bottoms up
ONO – Delicious. Also an Island Fish
PALI – Cliff or cliffs
PAU – Done, finished
PEHEA OE – How are you
POI – Hawaiian staff of life, made from taro root
PUKA – Hole or opening
PUNA – Place name used as a direction
PUPU – Hors d'oeuvre
SHAKA – Slang. A hand gesture made with a closed fist except for the thumb and pinky, palm facing toward you. Means "hang loose".
TUTU – Grandma type
WAHINE – Woman



Talking Pidgin (Written by Dawn Imholte)

When you're socializing, shopping, eating out, or listening to the radio, you will hear the local lingo. It's the use of their slang "PIDGIN." This language is purely for fun but can get you in trouble. Hopefully you too will be amused.

When you're at work with locals someone is going to pick up lunch. It might be BENTO (BEN tow) box lunch, Japanese style. You might love the cuisine and you might express it, "Wow! Some Ono! Brok' Da Mout." Translation: ONO (OH no) good, delicious. BROK (broke) intense experience. DA (duh) the. MOUT (Mowt) Mouth.

If someone asks if you're sharing, and you like your lunch too much say "Ovah deah, get plenny grinds." Which translates to "Over there is plenty of GRINDS (grines) food."

DA KINE (da KINE) is *the* be-all of pidgin. You can use it anytime, anywhere, anyhow, for anything. "Eh Brah, Wheah Da Kine?" In the local environment everyone around you should know which Da Kine you are speaking of. The sentence before this one will make you laugh when you finally understand what this word means.

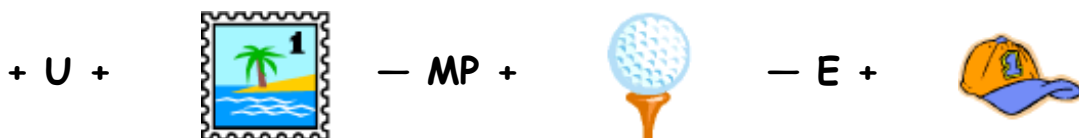
On the weekend you might see a movie. "This was a junk movie!" JUNK is lousy or terrible. JUNKS can also be what you have building up in your garage or old pant pockets.

When someone tells you what the movie you were about to watch was all about you can say to them "MAHALO" (ma HA lo) touristee for "thanks". It is used mostly by entertainers and your friendly hotel lobby clerks.

Whether you live on or off post you might have the neighbor who knows it all. NI' ELE (nee EH leh) is nosy. She will tell you everyone's business before you get your furniture off the truck! She has WALA 'AU (va la OW) diarrhea of the mouth.

When you ask someone for something you can use ONE (won) A, in front of it. "Hon, you going pick up one lobsta fo' dinna?" Which is, please pick up a lobster for dinner on your way home dear. Then he replies from his cell phone "Eh, NO NEED! All PAU already. Wen' get BEAH afta 18th PUKA." This means it's not necessary sweet-heart, I finished work early and shot 18 holes with my buddies and now I'm drunk! You think to yourself when you hang up, he's in PLENTY (PLEN nee) troubles and we've been in Hawaii LONG TIME ALREADY!

Remember now, this is in fun but in PIDGIN it's GOOD FUN.



**MORE PIDGIN...**

An Den - What happened next, "And then".

Akamai - Intelligent, smart

Brah / bruddah - Similar to "Brother" or "pal" in slang.

Example: "Eh, brah!"

Broke da mout' - Delicious tasting.

Buggah - This could be a guy, girl, or thing. Connotation could be a friend or pest, depending on the tone of voice and how the word is being used.

Bumbye - Later on.

Bussum Out - I want some, share with me.

Check U'm Out - Check it out

Chicken skin - The bumps on your skin when you get the chills or an eerie feeling.

Da kine - Versatile word used to replace words that can't be remembered or are unknown while you are speaking

Fo' What - Why? How come? "For what".

Fo' Real - Are you sure. "For real".

Garans - Guaranteed.

Give 'um - Go for it dude, try your hardest.

Grind - To eat.

Grinds - Good food.

Hana Hou - One more time, do it again.

Hawaiian Time - To be late.

Hele On - Let's go, get moving.

Howzit - "How are you?", "How's it going", or "How have you been?"

Huhu - Mad.

Kay Den - Okay then, if that's the way you want it.

Like dis; like dat - Like this or like that.

What Like Beef - Do you want to fight.

Lolo - Dumb, slow, crazy, does not make sense.

Lua - Bathroom.

Moke - Big, tough local.

Nevah - Never.

Pau - Finished.

Spahk - Check it out.

Stink Eye - A dirty look, like right before a fight.

Tita - A very tough girl, a girl that thinks she's a guy.

Talk story - Conversation at length.

Whaddsdascoops - What 's the scoops? What's going on?

The 12 Days of Christmas (Hawaiian Style)

Numbah One day of Christmas, my tutu
give to me
One mynah bird in one papaya tree.

Numbah Two day of Christmas, my tutu
give to me
Two coconut, an' one mynah bird in one
papaya tree.

Numbah Tree day of Christmas, my tutu
give to me
Tree dry squid, two coconut,
An' one mynah bird in one papaya tree.
Numbah Foah day of Christmas, my tutu
give to me
Foah flowah lei, tree dry squid, two coconut,
An' one mynah bird in one papaya tree.
Numbah Five day of Christmas, my tutu
give to me
Five beeg fat peeg... foah flowah lei,
tree dry squid, two coconut,
An' one mynah bird in one papaya tree.

Numbah Seex day of Christmas, my tutu
give to me
Seex hula lesson, five beeg fat peeg
(that make TEN!),
Foah flowah lei, tree dry squid, two coconut,
An' one mynah bird in one papaya tree.

Numbah Seven day of Christmas, my
tutu give to me
Seven shrimp a-swimmin', seex hula
lesson,
Five beeg fat peeg, foah flowah lei, tree
dry squid, two coconut,
An' one mynah bird in one papaya tree.
Numbah Eight day of Christmas, my tutu
give to me
Eight ukulele, seven shrimp a-swimmin',
seex hula lesson,
Five beeg fat peeg (that make
TWENNY!), foah flowah lei, tree dry
squid, two coconut, An' one mynah bird
in one papaya tree.

Numbah Nine day of Christmas, my tutu
give to me
Nine pound of poi, eight ukulele, seven
shrimp a-swimmin',
Seex hula lesson, five beeg fat peeg,
foah flowah lei, tree dry squid, two coconut,
An' one mynah bird in one papaya tree.

Numbah Ten day of Christmas, my tutu
give to me
Ten can of beer, nine pound of poi, eight
ukulele, seven shrimp a-swimmin'
Seex hula lesson, five beeg fat peeg,
Foah flowah lei, tree dry squid, two coconut,
An' one mynah bird in one papaya tree.
Numbah Eleven day of Christmas, my
tutu give to me
Eleven missionary, ten can of beer, nine
pound of poi,

Eight ukulele, seven shrimp a-swimmin',
seex hula lesson,
Five beeg fat peeg, foah flowah lei, tree
dry squid, two coconut,
An' one mynah bird in one papaya tree.
(Numbah Twelve day of Christmas the
bes', and the bes' stuff always come
las'...)

Numbah Twelve day of Christmas, my
tutu give to me
Twelve TELEVISION, eleven mission-
ary, ten can of beer,
Nine pound of poi, eight ukulele, seven
shrimp a-swimmin',
Seex hula lesson, FORTY steenkin'
peeg,
Foah flowah lei, tree dry squid, two coconut,
An' one mynah bird in one papaya tree!

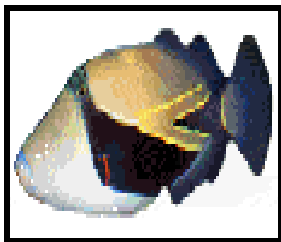
Music and lyrics published by Hawaiian
Recording and Publishing Company,
Inc., and copyrighted in 1959.

"Mele Kalikimaka!"





There is a huge Swap Meet held at the Aloha Stadium every Wednesday, Saturday and Sunday (486-6704). Here you can find anything from clothing and accessories to plants and one of a kind handmade gifts. Just for fun have your name written in Hawaiian on a piece of ivory or a wooden plaque. The people who run these businesses know how to translate. However, if you just want to see what it would look like here's a website that will translate for you. <http://www.hisurf.com/hawaiian/names.html>



THE HAWAIIAN FISH (Trigger Fish) **Humuhumunukunukuapua'a**

Pronounced: Humu - humu - nuku - nuku - a - pu - a - a
(hoomoo - hoomoo - nookoo - nookoo - ah - poo - ah - ah)

KAMA PUA'A - The Pig Child

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A long time ago on the Island of Oahu, lived a powerful king whose son was named Kama Pua'a. This child was difficult, to say the least. He was always chasing away his father's livestock and tearing up the royal taro patches. His father swore that if he ever caught him, he would kill him. To save himself, Kama Pua'a fled Oahu and moved to Maui and married Madame Pele, the fiery goddess. They were in love and soon had a son.

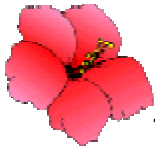
A sad event occurred; the son died. Madame Pele, as fiery as she was, went into a rage and started chasing Kama Pua'a. To escape, he started running down the slopes of Haleakala, towards the sea. When he did this, he turned into a giant hog. With Madame Pele gaining, Kama Pua'a called to his grandmother on Oahu, "Grandma, Grandma, what should I do?"

*His grandmother answered his call, "Leap into the ocean and you shall save yourself." When he got to the bottom at Pa'uwela, he leaped into the ocean and changed into a fish. This ended his emotional experience with Madame Pele. Thus Pa'uwela, which means "calming of emotions", was named. The fish that Kama Pua'a turned into was a **Humuhumunukunukuapua'a**; a fish with a pig snout. And today, that fish is the Hawaiian state fish.*

This is the same fish that "goes swimming by", in that catchy "Little Grass Shack" song.



Customs and traditions. Hawaii has some unique and fun customs and traditions. You'll find that some may be similar to what you've seen in other parts of the world, but here they always have that little twist that makes them uniquely Hawaiian.



THE ALOHA SPIRIT LAW

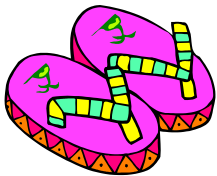
<http://hawaiianlanguage.com/alohaspiritlaw.html>

The Aloha Spirit Law is an ACTUAL law "on the books" in Hawai'i, encoded in the Hawai'i Revised Statutes, section 5-7.5 and acknowledges that **The Aloha Spirit** "was the working philosophy of native Hawaiians and was presented as a gift to the people of Hawai'i."

All citizens and government officials of Hawai'i are obligated by law to conduct themselves in accordance with this law, while performing their duties and obligations, as well as in their day-to-day living. Likewise, those visiting our fair islands are expected to conduct themselves in accordance with this Hawaiian law.

The Aloha Spirit elevates, empowers and ennobles its people, and KEEPS Hawai'i the uniquely special place that it is. **The Aloha Spirit Law** deserves our unmitigated support and compliance. As a model law for the world, it can serve the greatest number for its greatest good.

Evil Eye. Hawaiian custom states that you shouldn't look straight into another person's eyes. If you do it may be misunderstood as you giving the other person "the stink-eye" or Evil Eye. Hawaiians are taught to "nana i lalo...look downward" when speaking to each other. The kapu originated from the Hawaiian practice of ho'opi'opi'o where someone could cause pain or illness in another through the use of the gesture and concentration on the person. There is still a law in the books (Hawai'i Revised Statutes section 772-1) which makes it a crime to give the evil eye.



TAKE OFF YOUR SHOES. In ancient times, the Hawaiians, who didn't wear shoes, would wash their feet before stepping upon the lauhala mat, which lined the floor of a house. This kept the mat clean for sleeping. This transferred over to modern times where slippers line the front of many doors of Hawaii. Taking off your shoes at the door is something that your hostess will greatly appreciate, it helps cut down on the Hawaiian red dirt that gets tracked into the house.

Christmas Hawaiian Style. Since Hawai'i only gets snow on top of the highest mountains (which are volcanoes!) on the Big Island and Maui, sleighs aren't much use and the reindeer get to take a well deserved rest while deliveries are being made here in Hawai'i. Santa, dressed in red aloha wear, shows up on his Christmas surfboard...a magic one of course...which carries him across the ocean and right up onto the beach to deliver Christmas cheer. After his deliveries I'm pretty sure he sticks around for a while and gets some much needed rest himself.

You may have heard the words "**Mele Kalikimaka**" before and know them to be Hawaiian for Merry Christmas. This is a phonetic translation. It's said that when the missionaries and other Westerners first brought the custom of Christmas to the islands, the Hawaiians had difficulty pronouncing Merry Christmas and turned it into words that rolled more easily off their tongues.



Microsoft Clipart
Adapted by—CL Steenfott



The Hawaiians didn't celebrate Christmas prior to the arrival of Europeans, but during this same time of the year, they traditionally honored the earth for giving them plenty to eat. This period of resting and feasting was called *Makahiki* (mah-kah-HEE- kee). It lasted for 4 months, and no wars or conflicts were allowed during this time.



Hula, is the Hawaiian word for dance. The hula began in ancient Hawaii as a form of worship. The musical instruments were often made of gourds, coconuts, or logs covered with a shark-skin membrane. The ukelele, which most westerners are familiar with, was also an important part of the hula. In order to dance the hula there must be poetry to interpret or a story to be told. The music is comprised of repetitive chants, called mele, either alone or combined with music. The hand and leg movement combined with facial expressions and the dance itself tell the story of the hula while the feet and pelvis keep the rhythm. The hula survives today through study, competitions, shows, and the dances for the visitor's enjoyment.

History of the Luau. In old Hawaii a luau meant a lavish food extravaganza to fete royalty, foreign dignitaries, powerful chieftains, or hundreds of guests at important weddings, christenings or birthdays. Luaus often lasted for days and required an incredible amount of preparation. Guests sat on mats on the ground, with food piled high in calabash bowls in front of them. They ate a bit, danced a bit, drank a little and sang a lot. A rollicking shared experience... a feast of *Aloha*.



Today the luau is simply known as a Hawaiian barbecue. It is a large party where the main course is Kalua pig—a whole pig steamed in an imu (underground oven). You will also find pupus (Hawaiian appetizers), lau-laus (meat, normally pork, cooked inside ti leaves), limu (seaweed), lomi-lomi salmon (cooked with tomato and onion), and haupia (coconut and pineapple pudding).

The luau is major visitor attraction and dozens are held daily throughout the islands. Some of the major hotels have them on a fairly regular basis...be adventurous and check one out.

MAY DAY. Several songs have been written about May Day (celebrated May 5th), but perhaps the most memorable is one that was written for the first Lei Day in 1928. [from "May Day is Lei Day in Hawai'i" by 'Red Hawke,' 1928]



*"...May Day is Lei Day in Hawai'i
Garlands of flowers ev'rywhere,
All of the colors in the rainbow
Maidens with blossoms in their hair
Flowers that mean we should be happy,
Throwing aside a load of care,
Oh, May Day is Lei Day in Hawai'i
Lei Day is happy day out there."*



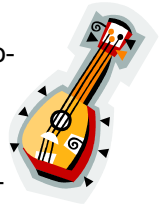
LEIS have long held special significance in Hawaii. They have many meanings and uses; the maile lei is the traditional offering to Laka, goddess of the dance, which is one of the reasons the hula dancers are so adorned with them. Leis are given to people arriving and leaving Hawaii meaning love or friendship. Leis are used in worship or to mark special achievements like graduations, weddings, and anniversaries. Leis can be made with flowers, leaves, shells, feathers, seeds, ivory and animal teeth. They can be braided, woven, plaited, knotted, wound, sewed, or tied.

Though now mostly associated with flower and plant leis, there are many different connotations to the word. "A lei is a baby, dearly loved...a lei is a sweetheart...a lei is a chanted poem or song accompanying a flower lei that is given to a person esteemed...a lei is an expression of affection and loyalty voiced in a chant." The giving of a flower or plant lei has come to symbolize the Aloha spirit.



Koa Tree. Traditionally, when it was plentiful, koa was used for everything from 60 foot, ocean-going canoes to food containers. Although koa canoes are still in use, this rare wood is now used mostly for crafting ukuleles, furniture, and art pieces. It is prized because it is getting harder and harder to find. It takes the Koa tree 50-80 years to mature, and so from an economic standpoint, there is little incentive for tree farmers or nurseries to plant them. Because of this most of the Hawaiian Koa is currently produced almost exclusively on the Big Island of Hawaii. Not only is the Koa tree itself rapidly disappearing, but it is also on the endangered registry due to concerns about the vanishing habitat it used to provide for (also endangered) native Hawaiian wildlife.

The Ukulele or Ukelele is pronounced oo-koo-lay-lay and in Hawaiian means "flea" or "jumping flea". It is a small guitar derived from the *machada*, or *machete*, a four-stringed guitar introduced into Hawaii culture by the Portuguese in the 1870s. Portuguese sailors and traders first brought the "little guitar" to Hawaii, and it was actually introduced and played publicly for the first time by a Portuguese immigrant named Joao Fernandez, in 1879. The 'ukulele was then called the Braginho because the first one had been manufactured in the province of Braga, Portugal. It is seldom more than 24 inches (60 cm) long. The ukulele has been played in Europe and the United States as a jazz and solo instrument in the 20th century. The ukulele has a happy sound and you'll see it pretty much anywhere you go in Hawaii.



UNUSUAL SHIPMENTS — In January 1997 the United Parcel Service transported:

30,000 lbs. of live animals for the Disney Production, *George of the Jungle* being filmed in Hawaii. In this shipment was one four-ton elephant ("Tai"), two zebras, four monkeys, several Toucans, and a pair of Dik-Diks from Ontario, California to Honolulu, Hawaii.

<<<http://www.pandaexpress.ups.com/unusual/unusual.html>>>



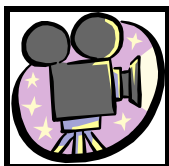
Hawaiian Shaved Ice, Tropical Sno, Sno Cone... whatever you want to call this popular Hawaiian treat, it's delicious and refreshingly cold on a hot summer's day. You can find it pretty much anywhere you go in a lot of different sizes, and the list of flavors seem endless.

Banana, Blueberry, Cherry, Coconut, Grape, Kiwi, Lemon-Lime, Margarita, Mango, Orange, Peach, Piña Colada, Pineapple, Raspberry, Root Beer, Strawberry, Watermelon, and Vanilla are just a few of the available flavors.

Gecko, is a common name for members of a family of small, harmless lizards, found mainly in tropical regions. Certain species of this family make a loud clicking noise that sounds like "gecko." Some people say it sounds like a cross between a dog's bark and a bird's chirp. They are the only lizards that make any sound other than hissing.¹ Geckos eat bugs, and can cling upside down to ceilings. They are found in many buildings in Hawaii and are sometimes considered good luck.



¹ "Gecko," Microsoft® Encarta® Online Encyclopedia 2000 <http://encarta.msn.com> © 1997-2000 Microsoft Corporation.



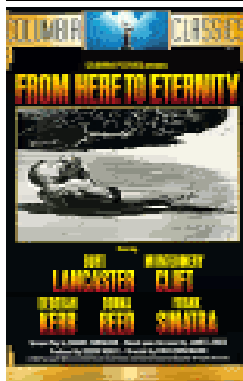
Movies. Hawaii is the site of many of Hollywood's legendary masterpieces and various TV series. There are well over 100 films that have been made here in Hawaii. I've listed a few of them here, in no particular order, just to give you an idea of the range of movies and shows filmed here. If you'd like more information on any of these listed, such as who the actors or directors were, what the plot line was, or to learn about other films, go to "*The Internet Movie Database, LTD*" website listed below. I've found it to be a fantastic resource.

Donnovan's Reef (1963), *Jurassic Park* (1993), *Jurassic Park III* (2000), *South Pacific* (1958), *Blue Hawaii* (1961), *Gilligan's Island* (1964 TV-Series), *Six Days, Seven Nights* (1998), *Fantasy Island* (1978-TV Series), *Raiders of the Lost Ark* (1981), *Hawaii Five-O'* (1968 and 1984 TV-Series), *Magnum P.I.* (1980 TV-Series), *Baywatch Hawai'i* (1989), *From Here to Eternity* (1953), *Miss Sadie Thompson* (1953), *Windtalkers* (2001), *Mighty Joe Young* (1999), *Pearl Harbor* 2001 (2001), *Raiders of the Lost Ark* (1981), *Throw Mama From the Train* (1987), *King Kong* (1976), *Krippendorf's Tribe* (1998).

The Internet Movie Database, LTD on Amazon.com at: <<<http://us.imdb.com/Lookup>>>

Did you know...

The pilot for *Gilligan's Island* was filmed in Hawaii in November 1963. The location was in a remote part of the island of Kauai, which had served as the major location for the film, *South Pacific*. The beach scenes were shot on the bay where the swabbies had sung, "There is Nothing Like a Dame." The crew stayed in a hotel built for *South Pacific's* cast and crew. —From *Gilligan's Island*, by Sylvia Stoddard.



From Here to Eternity (1953) From Columbia Pictures

Based on the novel by James Jones. Eight Oscars® include Best Screenplay (Daniel Taradash) and Cinematography (Burnett Guffey).

Academy Award® - Best Picture, Best Director - Fred Zinnemann, Best Supporting Actor - Frank Sinatra, Best Supporting Actress - Donna Reed

This film was ranked #52 in the American Film Industries All-Time Top 100.

"From Here to Eternity is a landmark example of Hollywood at its finest. An all-star cast brought what was considered an unfilmable novel to the screen with skill and grace. The story of the loves, hopes and dreams of those in a close-knit Army barracks in Hawaii shortly before the attack on Pearl Harbor. Montgomery Clift plays Robert E. Lee "Prew" Prewitt, a former boxer who refuses to fight after blinding a friend in the ring. Love and tragedy abound in this look at military life before the war." 1990-2001 The Internet Movie Database Ltd an Amazon.com Company <<<http://us.imdb.com>>>.

As the story line indicates, this movie is based at an "Army barracks in Hawaii". Portions of the movie were filmed at one of "The Woods" houses on Schofield Barracks and although it is generally accepted that the house in the film is located on McAndrew Road, the exact house was never documented.

The library on Schofield currently has two copies of this movie. If you've never seen it...go check it out; all you need is an ID card.





Hawaii Movie Tours (Kauai). *With four great tours, we guarantee you have never experienced anything like it. Travel in our theaters on wheels to film sites of Hollywood's legendary masterpieces. Jurassic Park, South Pacific, Blue Hawaii, Gilligan's Island, Six Days, Seven Nights, Fantasy Island, Raiders of the Lost Ark and many others, filmed on the stunning island of Kauai. Watch the scenes while at the locations where they were filmed. Learn fascinating inside details of the stars and what they did when they were here. Visit beaches like no other on Earth. Learn Hawaiian myths and legends, language, flora and fauna. Enjoy a delicious picnic lunch on a beautiful beach. Sing show tunes! The five-hour Hawaii Movie Tours depart at 9 a.m. Monday-Saturday. The \$85 fee includes pickup at major hotels and a picnic lunch. To make reservations call toll-free 1-800-628-8432. For a complete list of movies or to make on-line reservations: <<<http://www.hawaiimovietour.com>>>*

The Aloha Tower. By CL Steenfott.

Located on Honolulu's Pier 9 is one of Hawaii's most notable...and noticeable historical landmarks...the Aloha Tower.

When it was completed in 1926 each face of the tower had the word ALOHA etched on it...a friendly announcement of welcome...or a fond farewell to all who saw it.

For years, the Tower, which stands over 184 feet tall, was the tallest building in Hawaii. It no longer holds that title, but it still has a unique charm of its own.

Situated on the Waikiki Beach waterfront, the Aloha Tower still possesses a great view of the harbor from the observation deck located on the 10th floor. The observation deck, which provides a view from all four sides of the building, is accessible by a small elevator. The elevator is operational 7 days a week from 9 am until sunset. On your

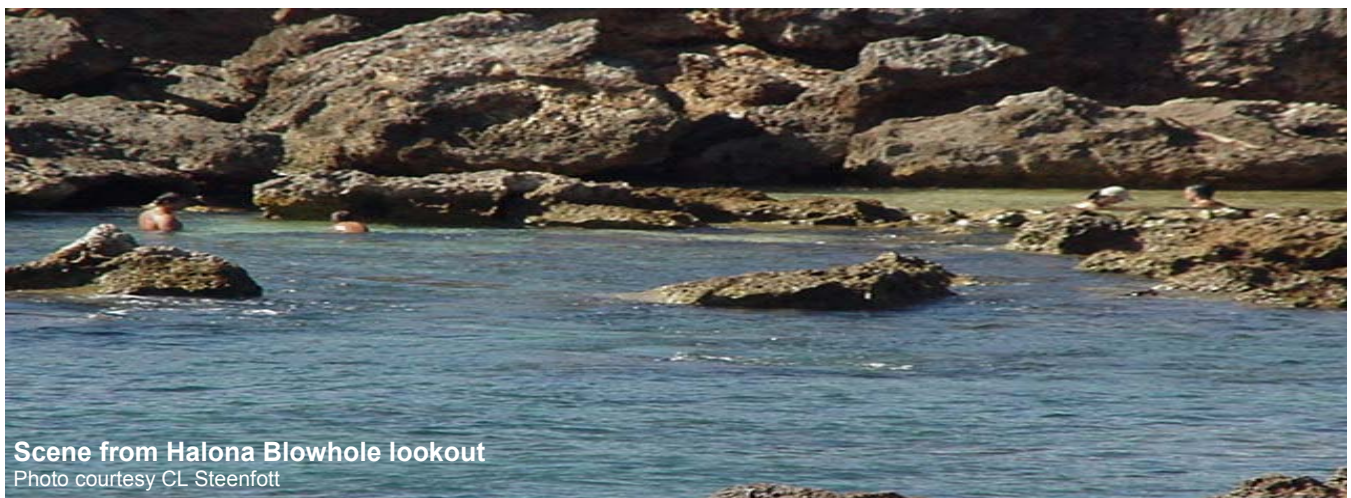


Photo courtesy - C L. Steenfott

way up to the observation deck you might notice that there's a bit of a time gap between the 9th floor and the 10th floor. That's because the huge clockworks occupy the "missing" floor. At one time, this clock was considered to be the largest of its kind in the United States.

The Aloha Tower has withstood the test of time and inclement weather and in May of 1976 it was added to the National Registry of Historic Places, ensuring that it will be around for many more years to come.

Go take a look...after you've made your trip to the observation deck there's still plenty to do in the area. Check out some of the shops located in the immediate vicinity or stop in some place for lunch. You may even catch a little entertainment in the form of a local group dancing the hula...it happens.



Scene from Halona Blowhole lookout

Photo courtesy CL Steenfott



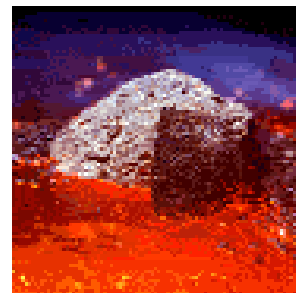
From Hawaii ... with superstition

By Ilze Zvirgzdins

Photos by Kelley Sullivan

<http://www.usps.gov/history/plife/pl082097/hawaii8.htm>

Knock on wood. Now that that's out of the way, let's discuss some black rocks that are either very pretty in their natural surroundings and harmless, or very bad luck if you pack them in your bags and take them home from your vacation in Hawaii.



They are volcanic rocks, shiny and shimmery, reflecting the colors of the rainbow. Like the beauty of the islands themselves, they tempt you to keep a piece of Hawaii with you forever. In a place created from volcanoes, you might wonder what harm could come from picking up a rock and putting it in your pocket and taking it with you. Or maybe you scoop up some black sand or stop at a souvenir shop and buy a tiki, an image of a Polynesian supernatural power, crafted from the rock. What could happen?

Nothing good, according to the letters that accompany rocks arriving daily at Hawaiian post offices, some by Express Mail with return receipt requested. Now that's leaving no stone unturned.

"We get tons and tons of rocks," says Kawai Isa, postmaster at the Hawaii National Park Post Office on the Big Island of Hawaii, where Kilauea, one of the world's most active volcanoes, rumbles and oozes lava, and where Pele, the goddess of volcanic fire, can be naughty or nice.

The return of rocks has been going on for at least a couple of decades and it's not inconceivable that tons is a pretty accurate accounting. Being close to Pele, the post office Isa runs gets five to six rocks a day. Then there are the conch shells, black sand, green sand and other whatnots that also show up in the mail.

These items pack a major superstitious wallop. Wrote one woman about the heart-shaped rock that made its way back to the Mainland with her: "I am returning it to you so you can put it back where it belongs. I have had more grief and problems in the last year than I ever have in my life. I don't know if having this rock has anything to do with it but ... returning it is at least a symbol to me that I am doing something to change the direction of my luck and life."

They've lost money. Their spouses have died. They've broken arms and legs. That's what Isa's heard, not that she actually reads the letters. "I'm not a superstitious person," she assures. She's also a native Hawaiian with a healthy respect for Pele. Isa passes along the rocks and their letters to the folks at the Hawaii Volcanoes National Park.

Now, this is the point where you're supposed to forget what you've read so far. Or, at least, don't mention it again. That would make the park rangers at Volcanoes Park happy. They hate publicity about the bad-luck rocks because it perpetuates something they think is downright silly. They say it's also culturally insensitive and wastes their time. The rocks are not returned to whence they came, the jigsaw puzzle of landscape. They're tossed behind the park's maintenance garage in pile after pile after pile; well, you get the picture.

"It's not real," insists Park Ranger Mardie Lane. "There is no Hawaiian legend, no curse of Pele.

"It's partly guilt," Lane assures, "since visitors are not supposed to take natural objects from national parks. And it's partly tabloid reporting because a story like this sells papers. But that's life — just as good happens, so does bad."

Bad luck happens? Now where's that rabbit's foot?



Kukui (Candle Nut)-- The Hawaiian State Tree

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The Hawaiians say that a long time ago when these islands came up from the sea and lay barren, only mountains and plains and beaches were here. The Sun God La had not come up from the ocean yet. Only the moon and stars gave light. The Tree God came and sat upon the sandy shore where a stream entered into the sea. He took some white sand, and



moistened it with water from the stream, and made many kinds of different seeds. When the seeds were dry, he planted them. Some he planted near the beach, some on level plain, others in gulches or on lava slopes.

Tiny trees sprang up with many colored leaves and for a little while these trees grew, but with only the light from the moon and stars, they sickened and withered away. The Tree God saw that his trees were

The Kukui belongs to the Spurge family. The leaves of the Kukui are a light green, the trunk is smooth, straight and un-branched to a height of 30-50 feet. If you look at the hillsides of most gulches here, you can easily spot it. The light color of the Kukui leaves, which resemble maple leaves, contrasts with the other, darker trees and plants. As the leaves grow, they turn a silvery color so that it looks as if it's lit by the moon. The Hawaiians say that the trees remember it was the moon which gave light to their ancestors.

dead and he knew that they needed sun. In the small

gulches he found trees that were still growing. Lit by the moon and the stars these little trees had flourished, and their leaves were like moonlight seen through floating clouds or reflected on still water.



The Kukui was a very important plant to the Hawaiians and has many uses. The bark, flowers, and nuts are used to make many different types of medicines. The kernel of the nut was used to make light. The Hawaiians would get twelve to fourteen of the nuts and string them to the rib of a coconut (Niu) leaf. They would then bring that string into their grass houses and light the top Kukui nut. Since the Kukui has such a high concentration of oil, it would ignite quite easily and would burn for two to three minutes. As it was burning, it would drop oil on the next nut in the chain and light that nut. Slowly burning down the chain, acting as a candle. That's how the Hawaiian people were able to light their grass houses at night. In Hawaiian Kukui means candle, so these light green tinged leaf trees are called Candle Nut Trees.

The Hawaiians also used the Kukui nut to make their torches (lama) by hollowing out one end of a length of bamboo and then loading Kukui nuts into the hollowed out section. They could then light it and carry it with them to light their way. Hawaiian fishermen used the resin from the tree to soak their fishing nets in every three to six months to keep the nets from rotting. They would also chew the nut, and trying not to swallow it, they would spit it in the water to aid them in searching for squid or octopus. The nut has such a high concentration of oil that supposedly it would smooth the water so the fisherman could see. The oil from the nut was also used as a polish, and the shell could be used to make leis or bracelets. The Hawaiians also discovered that the oil, when smoothed on the skin, soothed and softened sunburns and irritations. New born babies were bathed in it, and the oil is still produced in its purest form today.

The Kukui nut lei has come to represent one's affection for someone else, so you would only give a Kukui nut lei to someone who is very special to you.

Hawaiian sayings:

- "The gum sticks to the candle nut tree" (refers to a child clinging to his mother).
- "When the kukui nut is spat on the water, the sea is smooth" (same meaning as pouring oil on troubled waters).



The Humpback Whale.

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Each year around November, the North Pacific Humpbacks begin to migrate to warmer waters from the cold arctic waters off the Gulf of Alaska. The adult humpbacks can survive the cold arctic winters, but their calves cannot. The new calves are born without a layer of protective blubber, so they need the warm water to survive. The Humpbacks travel to three primary locations to reach those warm waters, the coast of Baja in Mexico, a group of islands south east of Japan, and the majority come to the Hawaiian Islands. Since the average water temperature in Hawaii's waters is about 74 degrees, it's nice and warm for the calves.

Most of the Humpbacks that come to Hawaii end up in the waters off Maui, due to Maui's unique topography and the fact that it's virtually predator free. Maui County is made up of four islands, Maui, Lanai, Molokai, and Kahoolawe. These four islands shelter and protect the waters from the sides, and they are so close to each other that they form a shallow basin at the bottom. The average depth of this area is only 300 feet, which for the humpback whale is just right. Humpbacks prefer shallow waters like this and spend the majority of their lives in water of this depth. In comparison, the waters off many of the other islands is almost an immediate drop off of 12,000-20,000 feet, a more common depth out here in the middle of the Pacific Ocean.

Humpbacks can grow to be about 52 feet in length and weigh 30-50 tons. They have two blowholes and range in color from white or black to mottled. They have distinctive patches of white on the underside of their tails. These markings are unique to each whale similar to a fingerprint.

While in the cold waters of Alaska, one of the major occupations of the humpback whale is feeding. The primary food source for the humpback is krill, a small prawn like creature with an average body size of about one and a half inches. Krill mass in vast schools, feeding on the oceanic microscopic phytoplankton. A humpback whale will eat up to two tons of krill a day.

The Humpback whales are said to be solitary animals. They travel in small groups of two to three whales called pods. Contrary to popular belief, Humpback whales are not monogamous, in fact they are promiscuous and mate with a number of different whales each year. Because of this, scientists never really know which male has fathered which calf. It also seems that humpback whales do not make life long friendships. Instead they have what are called associations. Whales are considered to be associated if they are surfacing at the same time, or diving, or engaging in similar behaviors, or if they are traveling within a body length of each other. The mother and calf are an exception to this. The mother generally never lets her calf stray more than a body length away for very long. They spend the first year of the calf's life together. The calf learns everything it needs to know in this time. Mating takes place in the warm Maui waters. The courtship can be exuberant and seemingly aggressive, involving energetic displays of high speed chasing, pectoral and tail fluke slapping, head lunges and breaching. The confusion ends in a single pair rising with their pectoral fins interlaced, belly-to-belly above the water, clasping each other. The normal gestation period for a humpback whale is between ten and twelve months. When a baby humpback is born it is about 10-12 feet in length and weighs from one to one and a half tons. During the first six months of a calf's life it goes through an amazing growth spurt growing about an inch a day and gaining about 100 lbs. each day. The Humpback whale reaches maturity at about 10-12 years of age and sexual maturity at about five.



Passengers aboard *Maui Princess*, *Molokai Princess* or *Lahaina Princess* can become active participants in the Humpback Whale research project. Assist with collection of critical information such as pod configuration, latitude and longitude of sightings, whale behavior, and of course individual whale identification. **Whale Watch Maui with: Maui Princess Yacht Cruises.** For reservations and information, phone (808) 667-6165, dial toll free (800) 275-6969 or email ismarine@maui.net.



Box Jellyfish and Portuguese Man-of-War

War: Box Jellyfish usually invade the beaches of Hawaii 8-10 days after a full moon and remain for up to 3 days, but they can also be found after a major storm. Heed the posted warnings.



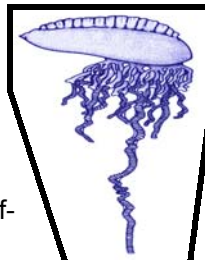
Box Jellyfish

Photo from University of Sydney Australia

The Box Jellyfish are named after their squared bells that are 3-5 inches; their stings are non-lethal but plenty painful. Jellyfish

are clear and difficult to see in the water, and may be found in the shallow water at the edge of the beach. Their tentacles can be up to 10 feet long! When beached they look like cellophane, but they can still sting, so stay clear.

The Portuguese Man-of-War is translucent and can be tinted pink, blue, or violet. It can reach 3 to 12 inches long and may extend as much as 6 inches above the water. The portion above the water looks kind of like a crest and this is how the Man-of-War moves...by using this crest (also called a float) as a sail...of sorts. Beneath the crest are clusters of polyps, from which hang tentacles of up to 165 feet in length.



Portuguese Man-of-War

Image from:
<http://waquarium.mic.hawaii.edu>

WARNING: Research indicates that it is best not to use vinegar, ammonia, alcohol, or fresh water on a Man-O-War sting and you should certainly not practice that old myth about using urine! I know they showed that on an episode of *Friends*, but don't fall for it. You could actually cause the active stinging cells to fire and potentially turn a minor pain into a major one. Use meat tenderizer to break down the toxin proteins and neutralize them and rinse the area with seawater NOT fresh water.

Avoid using any unproven and possibly harmful remedies for jellyfish or Man-of-War stings. See a doctor if pain persists, the rash worsens, a feeling of overall illness develops, a red streak develops between swollen lymph nodes and the sting, or if either area becomes red, warm and tender. If the person who is stung develops a shortness of breath, irregular heartbeat, or goes into shock SEEK HELP IMMEDIATELY!

Man-of-War stings reportedly go away in about 15 to 20 minutes, but some members of the 125th MI BN have shared their experiences with me about getting stung and they say that the pain can last anywhere from 1 to 3 days. I would imagine that the duration of the pain might be based on how many stinging cells fired before help was received and what you were actually stung by.

They also reported that using the methods listed here do help keep more stinging cells from firing, but the sting can still be quite painful. Go to the lifeguard station and get help immediately.

The *Healthwise® Handbook*¹ that we received from TAMC when we first arrived has the following advice for Jellyfish Stings.

Jellyfish stings cause pain and hive-like swellings. If the stings are numerous and a large amount of poison is released into the skin, there may be a shortness of breath, nausea, and stomach cramps. In severe cases there can be muscle cramps, fainting, vomiting, and difficulty breathing.

Home Treatment:

- * Rinse the area immediately with sea water. Do not use fresh water and do not rub; doing so will release more poison.
- * Splash vinegar, rubbing alcohol, or meat tenderizer dissolved in saltwater on the area to neutralize the poison.
- * Remove any attached tentacles carefully. Protect your hands with a towel and apply a past of sand or baking soda and saltwater to the area. Scrape the tentacles off with the towel or the edge of a credit card. (Note: Some members of the medical community believe it is better to try to "lift" the tentacles off of the skin rather than scraping them off.)
- * Apply calamine lotion to relieve pain and itching.
- * If you are stung by a Portuguese Man-of-War jellyfish, scrape the stinging tentacles off with sand and seek medical care immediately.

¹ Healthwise® Handbook, Thirteenth Edition, 1997, Healthwise® Incorporated, Boise, Idaho

The information in this section is intended for general use only. ALWAYS consult medical professionals for all of your health care needs.



Currents

Coastal currents occur along the coast and only affect small areas. One current found along the coast is the **Longshore Current**. This current is caused when waves strike the beach at an angle. The front part of the wave hits the shallow water first and slows down. The rest of the wave bends as it comes onto the shore creating a current that parallels the beach. Larger waves, which strike the beach less often at greater angles, create stronger longshore currents. In areas where longshore currents often occur, sandbars form.

Rip currents are a potentially dangerous effect of longshore currents. Rip currents, sometimes called **rip tides**, can happen when longshore currents, which move parallel to the beach, bounce seaward because of a change in the bottom's structure. Breaks in sandbars are also optimal places for rips to happen. Swimmers need to be careful in areas where rips can occur. A swimmer can be carried out to sea with this flow of water. Swimmers caught in this current should swim parallel to the shore until they are out of the rip current. Then, they can swim safely to shore.

One type of vertical current is called a coastal **upwelling**. Winds blowing offshore (or toward the ocean) push water away from the shore. Deep, colder water rises to replace the water that has been blown out into the ocean. This cold water from deep off the ocean floor brings many nutrients to the surface. Why do you think this water has so many nutrients? Dying organisms and fecal matter fall to the ocean floor. As these decompose (rot), nutrients are released, but few organisms are there to use the nutrients. They remain trapped on the ocean floor until an upwelling pushes them to the surface. Plankton blooms usually follow coastal upwellings because of the abundant nutrients that come with it.

Downwelling is another coastal happening. Onshore winds (or winds blowing toward the shore) push water toward the coast. This drives the nearshore surface water down and away from the coast.

This information taken from the Office of Naval Research, *Ocean in Motion* section. For more information go to: <http://www.onr.navy.mil/>.



Image from Microsoft Office Design Gallery

Riptides and undertows: Breaking waves carry water toward the beach. The water can't just pile up there: it has to escape back out to sea somehow. If there's a place along the beach where the waves aren't as strong, the water near the shore escapes through that weak spot, flowing back out to sea. This is a rip tide. If there is no spot with weaker surf, the water flows down and *under* the waves and back out to sea, forming an undertow.

Most deaths attributed to "undertow" happen when people are playing in the area where the waves run up onto the beach and get their feet knocked out from under them when the water flows back out. They get

dragged a short distance into the breakers, and aren't strong enough or knowledgeable enough to get back to shore.

To escape a rip tide, swim alongshore to the left or right, to escape the seaward-flowing jet of water. Riptides can flow much faster than you can swim: if you try to swim directly back to shore against the current, you'll soon become tired and risk drowning. Surfers often use these as "express lanes" to get back into deep water after catching a wave. But don't do this unless you're a strong swimmer, have a surfboard for flotation, and know exactly how far out the rip tide will take you.



The Pacific Green Sea Turtle. (Many thanks to children's book author and illustrator, Tammy Yee, for giving her permission to use the following story and illustration. Copyright © 2000-2001 Tammy Yee. All rights reserved. Please visit her site at <<<http://www.tammyyee.com/>>> for more of the story on The Pacific Green Sea Turtle and other stories as well as a lot of fun things for the keiki in your life.

Did you know that all the hatchlings in the nest of the Pacific Green Sea Turtle are either male or female? The temperature of the nest determines the sex of the turtles.

Cooler nests produce a clutch of males while warmer nests produce females.

Green sea turtles are agile swimmers, but on land they are cumbersome. Between May and August, female turtles clamber ashore in the Northwestern Hawaiian Islands to lay their eggs. The eggs incubate for 50 to 60 days. On a clear, moonlit night, the hatchlings dig themselves out of their nests and scramble to the water. Only 2 inches long, the tiny turtles must avoid ghost crabs, sea birds, and fish on their way to the open sea.

Turtle or tortoise? Turtles live in the water. Tortoises live on land.

Once, there were tens of millions of green sea turtles around the world. Now there may be fewer than 200,000 mature females. In Hawaiian waters, the Green Sea Turtle is making a comeback from its threatened status. Due to their size and swiftness in the water, they have only two predators, sharks and people. Human impact includes exploitation, poaching, subsistence hunting, incidental catch, and marine debris and habitat destruction.

Hawaii's green sea turtles reach sexual maturity at 10 to 50 years (average 25). They can migrate up to 800 miles from their feeding areas near the coasts of main islands to nesting beaches in the Northwestern Hawaiian Islands. From one to 350 females nest each year, coming to shore several times in one season. It will be two to three years before the same female will nest again. While each nest averages 100 eggs, only a few of the hatchlings will survive to adulthood.

Green Sea Turtles can be colored from dark brown to olive with lighter stripes and spots. Adult shell lengths range in size from 0.9-1.1 meters (36-43

inches) and weights average 90-137 kilograms (200-300 pounds). They are primarily a tropical herbivorous species and are the only turtles with a serrated jaw. Others turtles native to Hawaii include the Hawksbill and Leatherback Turtles, while Loggerheads and Olive and Kemp's Ridley Turtles are infrequent visitors. All of these turtles are endangered.

We can take you to areas used by Green Sea Turtles. Look for them resting under ledges or swimming freely. Be especially sensitive to a resting turtle and never grab hold of a turtle as you can literally drown them! These creatures have personalities and moods like you and I. If paid the proper respect they can give you a lifetime memory.

*Wild Side Specialty Tours on the island of Oahu:
84-664 Upena St , Waianae HI 96792 , TEL (808) 255-5812 / FAX (808) 696-0103
email: WildSide@SailHawaii.com*

Would you like to help?

Caribbean Conservation Corporation—The Caribbean Conservation Corporation was founded for the purpose of conserving Sea Turtles through research, training, advocacy, education and the protection of natural areas. One of the programs run by the CCC allows you to adopt a turtle in return for a small donation. For more information about becoming a Green Turtle Program volunteer or to "adopt" a Tortuguero turtle from Caribbean Conservation's Sea Turtle Survival League, call 1-800-678-7853.

Mote Marine Laboratory—Mote Marine Laboratory also runs a program that allows you to adopt a sea turtle or hatchling for a small donation. The cost for adopting a mom turtle is \$100 and for that you, or your loved one, will receive an adoption certificate, nesting data, a beautiful Sea Turtle poster, and sighting reports when she comes back to nest in future years. Hatchlings can be adopted for the low, low price of \$10 each. You'll receive an adoption certificate, the date and location of the nest, and a photograph of the hatchling. For information, call 941-388-4441 or 800-691-MOTE.



Plumeria, (*Frangipani*) also known as the Lei flower, is native to warm tropical areas of the Pacific, especially Hawaii. This beautiful flower was named after Charles Plumier, 17C French botanist. The Plumeria is a very hardy plant and grows easily with very little care. After planting it will bloom within 18 months. It does well in containers and will grow to the size of the pot. It can tolerate cold weather but not freezing and can be taken inside for winter. It is easy to grow, even for beginners.



Palm trees, lose their branches easily so don't park your cars under them. Although they appear light and wispy, they can be very heavy and have been known to pierce right through the soft top on a jeep. Contractors periodically prune the palms to prevent the hazardous coconuts from growing. *Photo courtesy of Heather Bird.*

Beware of the "majestic Royal Palms!"



Mango and Avocado Trees. Residents of Military Family Housing are asked not to plant mango or avocado trees. Although they are beautiful trees, they are deep-rooted trees, which can grow to a height of 90 feet and a width of 80 feet. Their root systems can do irreparable damage to building foundations, sewer lines, and drainage systems.



*Photo courtesy
CL Steenfott*

Hibiscus. The Hibiscus is the state flower of Hawaii. It is often worn behind the ear. More than 5,000 hybrids have been developed. Whether they're left on the plant or cut and brought inside (no water necessary), the blooms of most varieties will only last for one day. There are a few whose blooms will look good for 3 or 4 days. When cooler weather slows the plants' processes, blooms may last a bit longer than during the summer months.



Ginger. Although more popularly known as a spice, the flower of gingers are one of the more widely used tropical plants. Their bright colors can be seen during festival times in the South Pacific as colorful dresses. Each plant will grow into beautiful flowers right before your eyes. It is a simple way to bring some Hawaiian paradise to your home for you to enjoy. Ginger can be easily grown indoors, growing and blooming by the window.

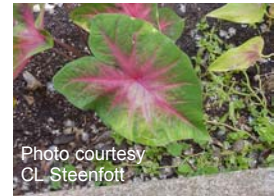
Red Ginger—soak stem & flower 1/2 hr every 3 days—will keep 2-3 weeks.

Shell Ginger—soak 10 min. remove natural sheath from around the flowers - will keep about 7 days.

Photo courtesy
CL Steenfott

Taro, whose scientific name is *Colocasia esculenta* (or *antiquorum*) is cultivated both in the uplands as high as 4,000 feet and in marshy lands irrigated by streams. The plant is a hearty succulent perennial herb, with clusters of long heart or arrowhead-shaped leaves that point earthward. **Taro** grows on erect stems that may be green, red (lehua), black or variegated. The new leaf and stem push out of the innermost stalk, unrolling as they emerge. The stems are usually several feet high. Tiny new plants appear around the base of the roots. The Pua, inflorescence, is an open yellow-white tube, enclosing a spike covered with flowers.

Depending on the variety, all parts of this sturdy and vital plant are eaten. The leaves are cooked as greens, similar to spinach. The tubers are eaten baked, boiled or steamed, or cooked and mashed with water to make **poi**. The fibrous flesh of the tubers is tough and spongy, ranging in color from white, yellow, lilac-purple and pink to reddish. Most important is the starchy root with enough glutinosity to make quality **poi**. The stiffest **poi** is called locally "one finger" and the most liquid "three finger". "Two finger" **poi** is considered the best. The planters know which kind of **taro** makes the best **poi**, which variety has the most tender leaves and which has the necessary medicinal properties.

Photo courtesy
CL Steenfott

The 25th Infantry Division shoulder insignia is a taro leaf with lightning. This is indicative of the origin of the 25th Infantry Division in the Hawaiian Islands.

The Autograph Tree (*Clusia Rosea*) is an evergreen tree that grows, very slowly, to 24-35 feet. It has a high drought tolerance and is a good shade tree. The simple green leaves are very strong and "leathery," and people enjoy "autographing" the leaves and watching them grow (of course we had to do it too). One that comes to mind is located just outside the entrance to the "Mighty Mo", the



Missouri battleship at Pearl Harbor. I imagine many visitors to the Island stop and autograph a leaf on that particular tree. It's said that at one time the leaves were marked with numbers and designs and used as playing cards. During certain times of the year, the Autograph tree will display attractive, pink and white blossoms followed by sticky, ball-shaped, seed-bearing fruits.



Photo courtesy—CL Steenfott



Photo courtesy—CL Steenfott

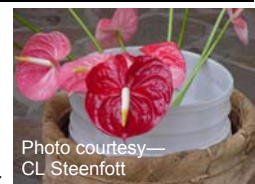
The Bird of Paradise (*Strelitzia Reginae*) is from South Africa; it has banana like leaves up to 0.5 m long and bright orange flowers with a blue "tongue". If you focus on the flowering portion at the correct angle it can indeed look like a bird. The seedpods are poisonous.

To bring out extra flowers, soak flower heads 20 minutes. Insert thumb through slit on upper edge and gently lift out flower.

The Bird of Paradise will stay lovely for up to 2 weeks if the water is changed and the stem trimmed 1/4" every other day. Dip ends in hot water or singe them with a flame. The heat causes the water in the stems to expand, forcing out extra air, which enables the stems to take in more water. Also, splitting the stem ends can increase exposed surface area for increased water intake.

Anthuriums, the "heart of Hawaii", are known for their especially long vase life. You will find these are used a lot by the local hotels and restaurants.

Cut 1/2" off the stem, being careful not to mash it; immerse the flower and stem in water at room temperature (70 to 80 degrees) for 10-15 minutes. Repeat this procedure every 5 days and the flowers will keep for 2-4 weeks. Do not refrigerate. Avoid storing anthuriums at temperatures lower than their ideal--55 degrees F--for any length of time. This way you'll reduce the likelihood of a chilling injury, which causes the flower to darken. I also found that they last longer in one area of my house than the rest...experiment until you find the best spot in your house.

Photo courtesy—
CL Steenfott



Pulelehua (Kamehameha Butterfly).

Scientific name: *Vanessa tameamea*

Many thanks to children's book author and illustrator, Tammy Yee, for giving her permission to use the following story and illustration. Copyright © 2000-2001 Tammy Yee. All rights reserved. Please visit her site at <<<http://www.tammyyee.com/>>> for more stories and fun things for the keiki in your life.

The Kamehameha butterfly is one of only two butterflies that are native to Hawai'i. With its bright red wings, bold black borders, and 2 1/2 inch wingspan, Pulelehua are often seen fluttering near Koa Trees, where adults feed on the sweet sap oozing from broken branches.

The Kamehameha butterfly lays its eggs on the mamaki plant, a native shrub that was sometimes used by Hawaiians to make a coarse tapa (the leaves are also used to make an herbal tea). Young caterpillars protect themselves by cutting a flap of leaf, pulling it over themselves, and securing it with silk to make a shelter. As they grow older, the caterpillars sit motionless on the branches, waiting for nightfall. Once the sun has set and the forest birds have gone to sleep, it is safe for the caterpillars to venture onto the leaves to eat. Even their chrysalis is well-camouflaged, looking like a withered leaf. In a little over two weeks, the chrysalis splits open, and out pops a beautiful Pulelehua!



Hanauma Bay
Photo courtesy Mary Phelps

Hanauma Bay

A great place to go snorkeling or just to relax for the day. Parking is limited so go early.



Hanauma Bay
Photo courtesy Rose Ann Spieles



Underwater life. Many thanks to Don Burdick, Owner of Flying Fish Express for allowing us to use the pictures in this section. You can visit Don's site at <<<http://ffexpress.com/>>>



Hawaiian Bicolor Pseudanthias—Endemic to the Hawaiian Islands. Found most frequently in deeper waters around the Hawaiian Islands. The bright colors are not apparent at depth, but sparkle when illuminated with a dive light. Males are more colorful and larger than females, and males generally maintain large harems of females.

Beneath the rolling surf and bubbling white ocean currents that surround the Hawaiian Islands lies a wonderland of color, and drama. All of the magnificent creatures calling this home are dependent on each other. All



Red Lobster *Enoplometopus* sp.

Lobster is the name of a number of animals that live on the bottom of the ocean. They are crustaceans, hard-shelled animals with segmented bodies and jointed legs. People around the world prize lobsters for their tasty white meat. Great quantities of these animals are harvested from the Atlantic Ocean and Pacific Ocean each year.

are prey and predator. Shown here are just a few of these underwater residents. I didn't go into great detail in the section, partly because I don't know that much about underwater life and partly because I think the pictures speak for themselves. I hope you agree.



Blue Reef Chromis cyanea Common above deep outer reefs. Feeds in aggregations of the small zooplankton. Often seen with creole wrasse. Retreats into coral crevices when frightened.

Reef Fishes. Hawaii's most colorful fish are reef fish. There are hundreds of kinds of saltwater fish that live in the warm, shallow waters around the coral reefs. The reef's clear, sunlit waters



Yellow, Hawaii Zebrafish *Zebrafish* has a geographic range that stretches between Japan and Hawaii. It commonly occurs in shallow reefs (5-10 feet) but also can be found at depths of over 100 feet. The brilliant yellow coloration of its body and distinct white spine on its caudal peduncle makes this species easy to distinguish amongst Hawaii's diverse coral reef fish species.

swarm with fish that dart in and out of the coral, which they use as protection. Many of them are among the most beautiful in the world; some use their vibrant colors to help defend their territory. Reef fish differ greatly

in appearance and in many other ways. For example, some are mainly plant eaters, such as parrotfish and surgeonfish. Others, including triggerfish and trunkfish, eat small water animals as well as plants. Still others are predators that hunt smaller fish. Such fish include groupers and moray eels.



Moorish Idol *Zancus canescens*. Moorish Idols get their name from Moslem people who say the fish brings happiness. They feed on sponges and are toxic to most other fish.

There are three kinds of lobsters in Hawaii—spiny lobsters, slipper lobsters, and reef lobsters. Spiny lobsters. The spiny lobsters have real strong pointy spines that help protect them from a frontal attack. The slipper lob-

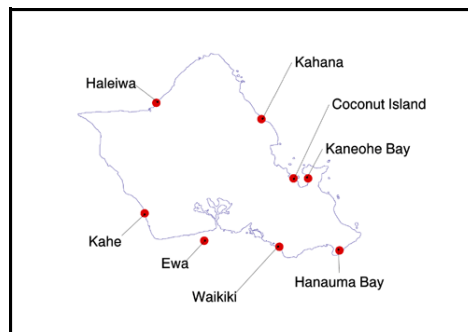


Naso lituratus which has orange lips and a "Mona Lisa" smile, but the base of its tail sports wicked orange spines that can shred an enemy's flanks.

sters is really quite beautiful and actually looks like it's wearing slippers. The small reef lobsters are the only ones that have claws.



Dragon - Hawaii *Muraena pardalis*—Believe it or not, I understand this is a juvenile Dragon Eel. The dragon goes through some color and pattern changes as it matures, but it's still unmistakable. It is **very** aggressive and has a mouth full of large sharp teeth. The bottom jaw cannot close because as you can see it is curved. As the dragon matures it's mouth and teeth get even bigger and the "horns" on its head become more pronounced.

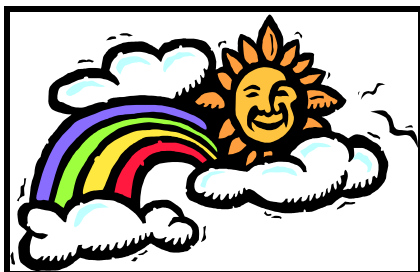


Oahu's Reef locations are indicated on this map... courtesy NOAA at <<<http://www.nodc.noaa.gov/>>>

Sources I used for this information are the Worldbook® Encyclopedia at <http://www.aolsvc.worldbook.aol.com/> and the National Oceanic and Atmospheric Administration at <http://www.noaa.gov>



RAINBOWS: If you've been on "*The Island*" anytime at all you've probably already noticed the al-



most daily occurrence of rainbows. Well, Hawaii isn't called "The Rainbow State" for nothing. If the conditions are right, you can see rainbows almost anywhere,

and since arriving here on Oahu, I've even had the opportunity to see double-rainbows for the first time in my life.

A rainbow is created when parallel rays of light enter a raindrop. As they enter the droplet, they bend. When they hit the back of the raindrop, they are reflected. White light is made up of different wavelengths, and we see these wavelengths as different colors. Each of the colors present in white light are bent a different amount as they pass through the drop of water. The red bends the least and violet bends the most. The rest of the colors lie somewhere in-between. The result...a **Red Orange, Yellow, Green, Blue, Indigo, and Violet** spectrum, or at least that's what Sir Isaac Newton decided in 1666, and that's what most of us were taught in school. I re-

member learning these "basic" colors using the acronym ROY G. BIV. Actually, scientists today have proven that the rainbow is a whole continuum of colors from red to violet and even beyond the colors that the eye can see, but regardless of the scientific facts...rainbows are just simply beautiful and a wonderful little surprise to see on the skyline.

With the fast moving rainstorms, the Pacific Ocean surrounding the islands, the mountains that help create the storms, and the ever-shining sun, the conditions in Hawaii are perfect for rainbows.

Most people never notice that the sun is always behind them when they face a rainbow, and that the center of the rainbow's arc is opposite to the sun. The rain, of course, is in the direction of the rainbow. If it's late in the afternoon or early morning and conditions are right, you will most likely find a rainbow. The biggest, fattest rainbows are seen when the sun is low in the sky and you can see partial rainbows when the rain and sunlight are not evenly distributed across the sky. The double-rainbow is created when a ray of sunlight enters inside the raindrop, but not all of the energy of the ray escapes the raindrop after it is reflected once. A part of the ray is reflected again and travels along inside the drop to emerge from the drop. For more information visit: <http://www.unidata.ucar.edu/> or <http://www.geom.umn.edu>.



Rainbow Fun Facts: (From Humphreys, *Physics of the Air*, p. 478)

- No two people ever see the same rainbow since the rainbow is a special distribution of colors with reference to a definite point - the eye of the observer - and as no single distribution can be the same for two separate points, it follows that two different observers do not, and cannot, see the same rainbow." In fact, each eye sees its own rainbow!! Of course, a camera lens will record an image of a rainbow which can then be seen my many people!
- A rainbow is nearby or far away, according to where the raindrops are, extending from the closest to the farthest illuminated drops along the elements of the rainbow cone.
- Rainbows are seldom seen during winter because they have to have rain and sunshine. In the winter, water droplets freeze into ice particles that do not produce a rainbow but scatter light in other very interesting patterns. Of course, this doesn't necessarily pertain to Hawaii...there's not much freezing rain here.
- Rainbows are not normally seen at noon because the center of the rainbow's circle is opposite the sun so that it is as far below the level of the observer as the sun is above it.



The Island of Oahu, pronounced “oh ah’ hoo”, is the third largest island in Hawaii. It is the home of Honolulu, the 11th largest city in America, but you will also find rain forests, canyons, valleys, waterfalls, mountains, coral reefs, and numerous beaches.

Oahu is generally considered to be the Island with the best year-round climate. Most days the temperatures range in the 80s and most nights are in the 70s, with light trade winds...more so in some areas than in others.

Oahu is defined by two mountain ranges: the Waianae Range in the west and the Koolaus in the east. These ranges divide Oahu into three different environments. The Windward side is lush with greenery, ferns, tropical plants, and waterfalls while the Leeward side is drier with sparse vegetation, little rainfall, and an arid landscape. Between these two ranges is the central Ewa Valley with its moderate temperatures and vibrant tropical plants, agricultural fields, and trees.

Fun Facts

Island of Oahu

Nickname: The Gathering Place

Flower: Ilima

Color: Yellow

State Capital: Honolulu

Length: 44 Miles

Width: 30 Miles

Population: 836,231

Highest Point: Kaala Peak (4,003 ft.)

Coastline: 112 Miles



The yellow ilima flower (Botanical name: *Sida fallax*) is the “*Flower of Oahu*,” popularly used for leis and once reserved for the Hawaiian royalty (the Ali'i or elite.) The ilima lei is one of the hardest to make, yet only lasts for a few hours. The flowers were also once used as a laxative for children, and the root bark mixed with the flowers was used as an asthma remedy.

Getting directions...island style! Maybe it's because the island of Oahu looks kind of tilted, the way it sits on the map, but if you ask for directions from a local, you are not likely to get them in terms that you recognize...at least not at first. You won't be told to head “north” or “south” because the locals don't use these terms...they use landmark directions. For example, you might hear something like this: “Drive two blocks makai, then turn Diamond Head at the stop light. Go one block, and turn mauka. It's on the Ewa side of the street.” Translated that means you should drive two blocks toward the sea (or in the general direction of Honolulu), then turn east at the stop light. Go one block, and turn toward the mountains (northerly). It's on the western side of the street. If you're listening to the radio and hear that there's been an accident blocking the traffic going “Ewa bound”, it means that traffic going west is probably slow moving. If you're watching the weather on the news and you hear of showers on the “Windward” side, the east coast of the island can expect rain.

DIRECTION	MEANING
Mauka (MOW-kay)	Toward the mountains or North Shore.
Makai (MAH-keye)	Toward the sea or the general direction of Honolulu.
Leeward	Waianae Coast or the western edge of the Island.
Ewa Bound	Going West.
Diamond Head or Koko Head Bound	Going East.
Windward	The Eastern side of the Island.



Photo courtesy
Rose Ann Spieles

Waimea Falls Park is located across the Kam Highway from Oahu's popular Waimea Bay, on the North Shore. It is a huge nature park with beautiful lush tropical plants, waterfalls, and some of the rarest plants in the world.

At Waimea you can experience Hawaiian daily living as it once was at the Village of Waimea. There are activities, exhibits, and cultural experiences for the whole family. In addition, the

park also offers fun and adventure for the family like jungle treks, paintball target shooting, Hawaiian Games, and cliff diving. They also occasionally host moonlit walks for the romantic at heart.

Waimea is situated in one of Hawaii's most beautiful valleys and I'm told it has seen it's share of the motion picture world. It has supposedly doubled as a backdrop for South Vietnam and Central America in various movies.

There is a fee to enter the park for age 4 and above...be sure to ask for the military discount. Call 638-8511 for more information.

The Haiku Ladder. (Written by Sarah Foster-Snell, an Information Officer of the U.S. Coast Guard)

The Haiku Ladder or Haiku Stairs as it is alternately called, is the name given to the locally famous 3,922-step stairway ascending the summit of the Ko'olau mountain range. But the most appropriate name of all is the Stairway to Heaven. Why?

The Haiku Stairs are located off Haiku Road in Haiku Valley on Oahu's Windward side. Prior to this moderate to strenuous hike, look up toward the sky. See the ladder somewhat disappear into the clouds blanketing the razorback peaks. A common after-feeling among climbers at the summit is an inner peace and a truly majestic, unparalleled view of Oahu's two sides, the Windward and Leeward. The trail's rock-strewn jungle entrance will beckon you to explore into the seemingly unknown. The ladder's beginnings were in no way humble. During World War II it served to provide access to the two now-abandoned buildings on the top of the ridge.

The first structure housed the winch (cable and pulley system), which helped bring much-needed supplies to the war-era watch standers who were occupants of the communications building a few hundred yards higher up the ridge. Also, before helicopters were in use, the technicians climbed the ladder to service the six antennas that are also located over the horseshoe ridge.

As a courtesy to the general public, good neighbor Coast Guard Omega station directly based at the valley floor below, allowed public access to the ladder as a hiking trail in the eighties. At the peak of its popularity, an overwhelming 1,000 hikers a month swarmed the ladder in 1982. Later on, vandals tore out vertical sections of the ladder and damaged the antenna anchors, causing \$400,000 worth of damage. Since costs to repair the ladder were unjustified, public access was closed to prevent mishaps.

Public commentary on the stairs was revived when the Coast Guard announced the closure of the station September 30, 1997. The City of Honolulu submitted a proposal outlining the conditions for acquiring the property as an excellent recreational resource to the public.

The ladder remains close to the hearts of locals because it has allowed adventurers to experience a hiking adventure "easier" than conventional trails. Plants growing alongside the ladder's rails were noted to be native flora, another source of appreciation for nature lovers.

This hike is not one for the weak of heart (literally) because of two vertical sections...

*Note: The Haiku Ladder is **OFF LIMITS**. Members of the U.S. Coast Guard monitor the bottom of the stairs. I only mention it here because it's part of Oahu's history and because amazingly, you can see the stairs (if you look hard enough) while you're driving on H3. After you pass through the larger tunnel and before you get to the smaller tunnel on H3 start looking up on your right and you'll see it.*



Haiku Ladder or "Stairway to Heaven"
Photo courtesy Rose Ann Spieles



Pearl Harbor. At 0600 on Sunday, December 7, 1941, Japan attacked Pearl Harbor, Hawaii, launching an initial strike force of 183 aircraft. At about 0645, an unidentified submarine was depth-charged at the Pearl Harbor entrance. The attacking planes came in two waves; the first hit its target at 0755, the second at 0845. An hour later it was all over. Behind them they left chaos, over 2,403 dead (2,000 of which were sailors), 188 destroyed planes and a crippled Pacific Fleet, including 8 damaged or destroyed battleships. In one bold stroke the actions of the Japanese silenced the debate about entering into WWII that had divided Americans. On the following Monday, FDR signed the declaration of war granted by Congress. *We were going to war!*



For more information or to take a virtual tour go to: <<<http://www.hawaii.navy.mil>>>.

On Memorial Day, 2001, a new motion picture by the team behind "The Rock" and "Armageddon" hit theaters. The story focuses on two young fighter pilots during the events leading up to the Japanese attack on Pearl Harbor on December 7, 1941.

Affleck Goes to Army Boot Camp

'Pearl Harbor' Cast Learns What It Really Takes To Be Soldiers

By Spec. Lauren Reader
Army News Service

Photo: Sailors try to extinguish fires aboard the USS West Virginia after the 1941 Japanese attack on Pearl Harbor. The main characters in the film "Pearl Harbor" are soldiers of the World War II-era Army Air Corps. (Credit: National Archives)



SCHOFIELD BARRACKS, Hawaii (April 13, 2000) - Ben Affleck, Josh Hartnett and five other actors spent March 28-31 at Schofield Barracks' "lightning boot camp," in search of inspiration for the military characters they will portray in the upcoming film "Pearl Harbor." Now filming on Oahu with 1,000 local extras, "Pearl Harbor" is scheduled for release on Memorial Day 2001.

"My job was to teach them basic soldier skills, such as drill and ceremony, physical training and fire guard," said Sgt. 1st Class Paul Donnelly, who acted as the actors' drill sergeant. "They worked with the M-1903 Springfield rifle, which was the issued weapon in the 1940s. They wore the field and khaki uniform from that era as well."



"I thought it would be cutesy and we'd learn things like how to salute," he said.

"But it was more like a scene from 'Full Metal Jacket,' incredibly grueling ... It gave me a tremendous appreciation for the military and what they endure on a daily basis. It didn't seem like only four days. It went from 5 a.m. to 11 p.m., and I even had to scrub a urinal." - Ben Affleck

Donnelly, operations sergeant at the Air Assault School, was not unfamiliar with his role in training the actors. He spent three years as a drill sergeant at Fort Jackson, S.C.

"My whole mindset was to treat them no differently as I would fresh troops going to basic training," Donnelly said. "It was exceptionally inspired knowing that they were going through this process to pay tribute to the World War II veterans. They did great. Their cooperation was thorough. Considering the time I got to spend with them, it was remarkable to me how far they came as trainees."

Affleck said boot camp wasn't quite what he expected. "I thought it would be cutesy and we'd learn things like how to salute," he said. "But it was more like a scene from 'Full Metal Jacket,' incredibly grueling ... It gave me a tremendous appreciation for the military and what they endure on a daily basis. It didn't seem like only four days. It went from 5 a.m. to 11 p.m., and I even had to scrub a urinal." "It was a huge character-building experience for me, something I'm positive I'll never forget," Hartnett said.



"This was a really unique opportunity for actors who wouldn't know what it takes to train a soldier without having been to this three-and-a-half-day basic training," said Maj. Gen. William E. Ward, commander of the 25th Infantry Division (Light) and U.S. Army, Hawaii. "There was bonding between the actors and cadre that only occurs when people share tough experiences. These actors became ambassadors for our Army. They will tell others of their experience. As the actors portray those soldiers in the Army Air Corps in the World War II era, they will do so with honesty and respect because they gained knowledge of what it means to be a soldier."

Oahu's Historic Lighthouses. - by CL Steenfott

We tend to think of a lighthouse as a beacon of safety...a tower of mystique and romantic charm. We envision the watchman of old standing guard in the tower at the foot of storm-tossed waves...waiting to guide us to the safety of the harbor. Well, the days of the traditional lighthouse keepers are gone, but the duty, the symbolism, and even some of the romance continues.

There are two lighthouses on Oah'u that I know are listed on the National Register of Historic Places, Diamond Head and Makapu'u. They're not very far apart so you could easily see them both in the same day, especially since you can only see Diamond Head Lighthouse from afar...is not accessible to the general public.

Diamond Head Lighthouse, Hawaii's second oldest lighthouse was listed on the National Register of Historic Places on October 31st 1980.



Named for the extinct Diamond Head Volcano it sits on, the lighthouse was originally built in 1899 and stands 147 feet above sea level on Oahu's southern shoreline.

In 1918, it was reconstructed using only the watch-room from the old tower. The newly restructured 57-foot tower was made of reinforced concrete. The lens from the original 1899 tower was installed in the new tower and that lens is still being used today.

Diamond Head Lighthouse has been modernized to some extent over the years. The old "steady light" has been changed to the present day flashing signal light, which reportedly can be seen 18 nautical miles away, an intensity of 60,000 candlepower. Clocks automatically control the light, turning it off at sunrise and on at sunset.

The Makapu'u Point Lighthouse located on Makapu'u Point in Waimanalo has its own claim to fame.

Established in 1909, the Makapu'u Lighthouse is the oldest lighthouse in Hawaii. All the commerce from the west coast of North America bound to Honolulu passes by the Makapu'u Lighthouse and for the past ninety-two years it has guided those ships safely around the rocky shores of Makapu'u Point.



The Makapu'u Lighthouse also houses the largest lens in the United States known as a hyper-radiant lens. The inside diameter is 8'2", large enough for several people to stand in. Although the tower is only 46 feet high the light is 420 feet above the sea. The 115,000 candlepower light can be seen for 28 miles. In 1974 the lighthouse was automated and its effectiveness greatly increased. The lighthouse now contains a radio-beacon. Signals from the radio-beacon can reportedly be heard two hundred or more miles at sea.

The Makapu'u Point Lighthouse was added to the National Register of Historic Places in December of 1977.

Like the hundreds of other "sentinels of the shore," Diamond Head and Makapu'u Lighthouses stand guard to guide the weary mariner safely past Oahu's rocky shore.

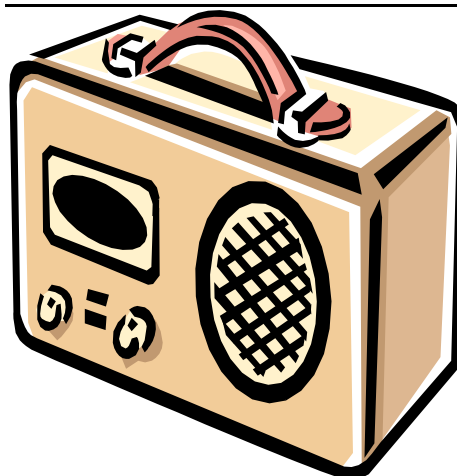
To visit Makapu'u Point Lighthouse. Plan about 3 hours. Wear sturdy but comfortable shoes and take sunscreen, water, binoculars and a decent camera.

The hiking trail up to the lighthouse is about a 2-mile narrow one-lane road used by the Coast Guard to drive maintenance vehicles up to the lighthouse. The road is not open to POVs, and so it has become a very popular hiking "trail." The area sits on a state owned conservation district and is recognized as a local state park.

Although the "trail" is not very steep, the hike can be somewhat strenuous for some folks. I hear the view is well worth it though and the hike back down goes much, much faster.



Radio Station Guide. The island of Oahu has the biggest population in the State of Hawaii, so naturally it also has the most radio stations, most of which are located in Honolulu. You can receive most of Oahu's radio stations from anywhere on the island, although the various sources of interference can be frustrating to some. Driving from Schofield Barracks to the North Shore or to Honolulu you will often "lose" the station that you are listening to. Generally, this loss of reception happens because the radio frequency is being blocked by mountains, various forms of electromagnetic interference, or is being deflected in the atmosphere by the ever-changing weather. Although they are not listed here, some of the neighbor island stations can also be heard at some locations on Oahu.



I compiled the following list of radio stations on September 7, 2001 and at that time all of the Internet links were working. If you find a link that is broken please contact me at Dsfoot@aol.com. - CL Steenfott

FM RADIO STATIONS

A vast majority of the radio station Internet links listed below also include a link to "listen on-line".

Freq	Call Letters	Cable CH	Programming Format	(808) Phone Request Line	Internet
88.1	KHPR	841	Hawaii Public Radio/NPR - "Music Through the Night" Classical Music and News: International, National, and local.	955-8821	http://www.hawaiipublicradio.org/
89.3	KIPO	842	Hawaii Public Radio: News, BBC	955-8821	http://www.hawaiipublicradio.org/
90.3	KTUH	843	University of Hawaii - College Radio (North Shore)	956-7261	http://128.171.65.211/
92.3	KSSK	844	Adult Contemporary Music	296-9292	http://www.ksskradio.com/
93.1	KQMQ	845	"Jammin' 93.1" "The Q" "Hawaii's New Hit Music Station"	296-9393	http://www.kmq.net/
93.9	KIKI	846	I-94 FM "Hawaii's Real Hits" - Contemporary Music	296-9494	http://www.i-94.net/main.html
94.7	KUMU	847	"Lite 94.7" Easy Listening	947-1500	http://www.kumu.com/
95.5	KAIM	848	Contemporary Christian Music	735-2424	
96.3	KRTR	849	Krater 96 FM - "80s, 90s, and Now"	296-9696	http://www.krater96.com/
97.5	KPOI	850	"The Rock You Live On" Modern Rock Hits	591-9369	http://www.975kpoi.com/
98.5	KDNN	851	"Island Rhythm" - Hawaiian Music	296-9850	http://www.islandrhythm.fm/
99.5	KORL		"Soft Rock Island Style"	591-9396	http://www.korl995.com/
100.3	KCCN	852	FM 100 "All of Today's Hawaiian Hit Music"	296-1003	http://www.kccnfm100.com/
101.9	KUCD	853	"Star 101.9" "Today's Music Alternative"	296-1019	http://www.star1019fm.com/
102.7	KDDB	854	"102.7 Da Bomb" - Contemporary Hits	591-9369	http://www.dabombhawaii.com/
104.3	KXME		"Xtreme Radio at 104.3" - Top 40 Dance	296-1043	http://www.xtremerradio.net/
105.1	KINE	855	FM 105 "The Hawaiian Music Station"	296-1051	http://www.hawaiian105.com/
105.9	KAHA		Lava Rock - Honolulu's Hottest Rock	949-5242	
107.9	KGMZ	856	Oldies Radio	254-3596	http://www.oldiesradio.net/



AM RADIO STATIONS

Freq	Call Letters	Programming Format	Phone	Internet
590	KSSK	Adult Contemporary Music	296-5959	http://www.ksskradio.com/
650	KHNR	"Hawaii's Only News Station"	533-0065	
690	KQMQ	"Hawaii's New Hit Music Station"	296-9393	http://www.kmq.net/
760	KGU-AM	News & Talk - "The Voice of Hawaii" and "Ask the Mayor"	296-7676	
830	KHVH	Talk Radio - news, traffic, weather, politics, lifestyle information, current events	521-8383	http://www.kvh830am.com/
940	KJPN	J-94 Japanese Music & Programming	593-1951	http://www.kjpn.net/
990	KHBZ	Business Talk Radio	550-9200	http://www.khbz.com/
1040	KLHT	Christian Music & Religious Programming	524-1040	
1270	KNDI	Asian Pacific News Program	946-2845	
1420	KCCN	News and Talk Radio	521-8988	http://www.kccnfm100.com/
1460	KUMU	"Lite"	947-1500	
1500	KWAI	On the Air K108	524-1080	
1540	KZOO	Polynesian Broadcasting	593-8670	http://www.kzohawaii.com/

INTERNET BROADCASTERS

Frequency	Programming Format	Internet
Channel One Hawaii	Hawaiian & Contemporary Music - Live Stream	http://www.ch1hawaii.com/
Hawaii Public Radio	Public Radio	http://www.hawaiipublicradio.org/
Headrock.Net	Classic Rock Music	http://www.headrock.net
I.R.H.	Internet Radio Hawaii (Hawaiian Music)	http://www.hotspotshawaii.com/irh/
PH1Hawaii.com.	Hawaii's Internet Entertainment Channel	http://www.ph1hawaii.com/

NATIONAL WEATHER RADIO

Freq	Call Letters	Programming Format	Internet
162.4	KBA-99	National Weather Radio - Oahu (Hawaii Kai)	http://www.crh.noaa.gov/
162.55	KBA-99	National Weather Radio - Oahu (Mt. Kaala)	http://www.crh.noaa.gov/

NOAA Weather Radio is a nationwide network of radio stations broadcasting continuous weather information direct from a nearby National Weather Service office. NOAA Weather Radio broadcasts National Weather Service warnings, watches, forecasts and other hazard information 24 hours a day.

Working with the Federal Communication Commission's (FCC) Emergency Alert System, NOAA Weather Radio is an "all hazards" radio network, making it the single source for the most comprehensive weather and emergency information available to the public. NOAA Weather Radio also broadcasts warning and post-event information for all types of hazards - both natural (such as earthquake and volcano activity) and environmental (such as chemical releases or oil spills).

I compiled this list of radio stations on September 7, 2001 and at that time I checked all of the Internet links. If you find a link that does not work or other errors please contact me at Dsfoot@aol.com. - CL Steenfott

**FREE AND CHEAP THINGS TO DO ON O'AHU.** (Suggestions from ITR)

WAHIAWA BOTANICAL GARDEN DOLE PLANTATION
MOKULEIA BEACH PARK
WHALE WATCHING (WINTER)
GLIDER SKY DIVER WATCHING (DILLINGHAM FIELD)
MATSUMOTO'S STORE (SHAVED ICE)
* WAIMEA BAY (WINTER SURFING)
* PIPELINE BEACH
* SUNSET BEACH (WINTER SURFING)
* SANDY BEACH (BOOGIE BOARDING)
* NOTE: DANGEROUS BREAKERS ON MAKAPU'U AND SANDY!
BLOWHOLE (WHALE WATCHING, WINTER)
HANAUMA BAY
**DIAMOND HEAD CRATER
**MANOA FALLS
**TANTALUS DRIVE (HIKING TRAILS)
WAIKIKI
FORT DERUSSY MILITARY MUSEUM
HALE KOA SWIMMING POOL
WAIKIKI AQUARIUM
HONOLULU ZOO
HILTON HAWAIIAN VILLAGE FREE SHOW FRIDAY EVENINGS, MUSIC, HULA, FIREWORKS

HULA SHOW (KAPIOLANI PARK WAIKIKI SHELL TUE THRU THO HOURS 10:00 AM)
ROYAL HAWAIIAN SHOPPING CENTER
ROYAL HAWAIIAN & SHERATON MOANA SURFRIDER HOTELS
PUNCHBOWL NATIONAL MEMORIAL CEMETARY
PALI LOOKOUT
FOSTER BOTANICAL GARDENS
IOLANI PALACE
MISSION HOUSES MUSEUM CHINATOWN
ALOHA TOWER
BISHOP MUSEUM
ALOHA STADIUM SWAP MEET (WED, SAT, SUN) AIEA LOOP TRAIL **
ARIZONA MEMORIAL, PEARL HARBOR
HICKAM AFB BEACH (GOOD FOR SMALL CHILDREN)
WHITE PLAINS BEACH/NIMITZ BEACH, BARBERS POINT-NAS
HAWAII'S PLANTATION VILLAGE IN WAIPAHU (NEWLY RESTORED)
MILITARY BEACH, WAIANAE ARMY RECREATION CENTER
**KOLEKOLE PASS



ACS has a Newcomer's Orientation every Tuesday 0900-1630. A bus tour has been designed to familiarize newly arrived soldiers and family members with the Army and civilian support services. The tour will orient you to the installation, the surrounding civilian community, Hale Koa Hotel, and various points of interest on Oahu. Registration is required. Call 656-1900.



* **EXTREMELY** dangerous undercurrent during winter months. Definitely not for small children.
Malaekahana State Recreation Area (Makuaia Bird Refuge) and Bellows AF Beach (Good children's beach.)

** Hiking Trails







View from Diamond Head Crater
Photo courtesy Rose Ann Spieles



Free Adventures on Oahu

Check out this list the next time you want to experience the sites, sounds, adventures, or history of the Island!

1. Listen to the Royal Hawaiian Band at Iolani Palace on Friday and in Kapiolani Park on Sunday.
2. See the Kodak Hula Show at the Waikiki Shell in Kapiolani Park on Tuesdays, Wednesdays, and Thursdays at 10 a.m.
3. Experience Aloha Friday with lunchtime entertainment at Honolulu Airport, or downtown at Bishop Square.
4. Enjoy the 4th of July Spectacular at Schofield Barracks.
5. Head back to the days of King Kalakua during the Hilton Hawaiian Village King's Jubilee celebration on Friday evenings.
6. Go to one of the many arts and crafts fairs held at Thomas Square, Kapiolani Park and Ala Moana Beach Park. 
7. Visit "Hyatt's Hawaii" at the Hyatt Regency Waikiki to see displays of Hawaiian arts and crafts and memorabilia.
8. Close your eyes and relax to the Honolulu Symphony Orchestra during its fall pre-season concerts around the Island.
9. Listen to Hawaii's hottest entertainers poolside at Sheraton Waikiki.
10. Enjoy food, entertainment, a parade of decorated beds and a race down Kalakaua Avenue for the fastest bed at the Annual International Bed Race Festival on April 20th.
11. Learn traditional and contemporary Hawaiian Hula at Royal Hawaiian Shopping Center.
12. Keep a lookout out for humpback whales off Makapu'u on Oahu's South Shore or Kaena Point on the northwest side of the Island from November through April. 
13. Experience "The AT&T Wildest Show in Town", twilight concert series held Wednesday nights, June through August, at the Honolulu Zoo.
14. Listen to the orchestra of ukuleles performed by more than 400 children at the 27th Annual Keiki Ukulele Festival, July 27, at Kapiolani Bandstand.
15. Experience traditional Hawaiian song and dance at Hyatt Regency's "With Aloha" daily performances.
16. See "Hawaii Stars" shine during karaoke contest held on center stage at Ala Moana Center once a month on selected Fridays.
17. See Honolulu City light up the sky from the financial district to downtown Honolulu in December.
18. Hike to the top of Diamond Head, Hawaii's most famous landmark.
19. Sit under a tree at Kakaako Park.
20. Fly a kite in Kapiolani Park in Waikiki.
21. Watch the moon rise at Lanikai Beach on the Windward side. 
22. Pack a picnic lunch and relax inside Diamond Head Crater.
23. Take the scenic drive over the Pali to Kailua and browse through the small charming town.
24. Take your boogie board down to Waimanalo and ride the waves.
25. Visit the Oceanarium Restaurant in Pacific Beach Hotel where an incredible 3-story 280,000 gallon saltwater fish tank holds hundreds of Hawaii's tropical fish.
26. Take a self-guided tour through Manoa, Kapaeha and Kaimuki, some of Honolulu's oldest and most charming neighborhoods.
27. Visit the ancient fishponds in Heeia and Kahaluu on the Windward side.
28. Watch the Friday night sailboat races from Magic Island at Ala Moana Park.
29. Keep your eyes and ears out for Hawaii's colorful birds in Kapiolani Park.
30. Watch world-class surfing competitions at Banzi, Pipeline, Sunset Beach, or Waimea Bay on the North Shore each winter. 
31. Get blown by the wind at the Pali lookout.
32. Watch the windsurfers at Kailua Beach or Diamond Head.
33. Watch the Hilton Hawaiian Village wildlife specialists feed the animals, including the hotel's very own penguins.

For even more stuff to do check out Hawaii Events On-line at:
<http://www.hawaiieventsonline.com/>



MORE things to do and see on Oahu.

Sea Life Park
Hawaiian Waters Adventure Park
Waimea Valley Adventure Park
Horseback Riding
Waikiki Aquarium
Honolulu Zoo
Polo Match
Boat Days at the Aloha Tower
World's largest maze (Dole)
Dolphin or whale watching
Luau
The Honolulu Symphony
Hawaiian Regional Cuisine
Sunset dinner cruise
Oahu's Micro-Breweries
Don Ho
Royal Hawaiian Band
"Falls of Clyde" - Hawaii Maritime
Polynesian Cultural Center
Oahu and Bishop Museums
Torch lighting ceremonies
Underwater World (w/o getting wet)
Learn to drive a race car
Tour movie locations

Parasailing
Take a ride in a biplane, seaplane
Fly an ultra-light
Fly a tandem hanglider
Cruise in a kayak
Jet-skiing
Learn to SCUBA or SNUBA
Charter a fishing boat
Ride in an outrigger canoe
Dive WWII wrecks
Experience windsurfing
Go sailing or snorkeling
Enter a run, bike, or swim event
Go hiking, camping, or exploring
Hike Diamond Head
Go golfing or play tennis
Go to a beach
Go on a picnic
The Island Soap & Candle Factory
The Farmer's Market
The Swap Meet
Take a carriage ride
Skydive
Shopping

Ex-
plore
the
Botani-
cal
Gar-
dens
Inter-Island Cruise
Visit other islands
Bodysurfing or Body boarding
Ride in a trolley
Battleship Missouri
WWII Submarine—U.S.S. Bowfin
Arizona Memorial
Punchbowl Crater
Explore ancient historical sites



Photo courtesy CL Steenfort

For more information and a huge list of other things to do visit "101 Things to Do" published by 101 Inc., Kailua-Kona, HI available on-line at www.101things.com or "Hawaiian Tours On-Line" website at <http://www.hcc.hawaii.edu/tours/index.htm>

Children's Attractions...

Kidsports (Hickam AFB, 448-6611) - Indoor play/exercise place for small children. They offer classes, but it is also open to the public 12-1 Monday through Friday at \$2.00 per child. Great place to take the children during a hot mid-day, and you can have birthday parties there on the weekends. There is also a very nice playground (wood structure) right outside of Kidsports.

American Box Car Track (Pearl City, 454-9724/947-3393, www.boxcarracing.org) - Open to the public on weekends. Admission is \$6.00. Fun place for both kids and adults. One track can be reserved for parties.

Hawaiian Railway Society (681-5461) - Train ride between Ewa Beach and Ko'Olina through sugar cane fields. 12:30 & 2:30 on Sundays. Adults \$8.00 Children 3 and over \$5.00

Pearlridge Keiki Fun (Pearlridge Shopping Center) - Free clown show or arts and crafts for small children every Tuesday morning 10-11:30 am. Sign up for Pearlridge Keiki Club (12 years and under) and you will receive the event calendar in the mail and also some store discounts at the mall.

Honolulu Zoo (Kapiolania Park, Waikiki) - African Safari, Petting Zoo, "Elephant Encounter...you can see elephants up close, and even feed them", Tropical birds, etc. Birthday parties can be arranged.

Waikiki Aquarium (923-9741, <<www.waikikiaquarium.com>>)—"Hawaii's Window on the Sea", There are all kinds of fish, coral, and unique marine animals such as nautilus and sea dragon. Many educational programs

TIP

At many places there are 2 or 3 different rates: tourist rate, Kama'aina (residents) rates, and military rates. You should have received a Kama'aina Card when you arrived. Generally speaking, the military rates and the Kama'aina rates are the same, but sometimes one is cheaper.

Don't be afraid to ask for the cheaper rate!



are also offered. You can get a membership for \$45 per year and you can use that same membership card to go to the *Honolulu Zoo* and the *Mission House*.

Hawaiian Waters Adventure Park (Kapolei, Exit 1 off H-1, 945-3928, <<www.HawaiianWaters.com>>) - 25 acres of rides, slides, and ocean's of excitement! The park is open from 10:30—4:00 pm weekdays and an hour longer on Saturdays and Sundays. Be prepared to get wet. They have giant water guns, all sizes and shapes of water slides, food, music, and lifeguards.

Hawaii Children's Discovery Center (Honolulu, <<<http://www.islandscene.com>>>) - 37,000 square feet of hands-on exhibits and stations that ask and answer questions. Play volleyball with a cyber robot. Put on sparkling costumes from India, dress up as a purple octopus or sit on a giant tooth in a giant grin. Write your name with backward letters while looking in a mirror or blow bubbles bigger than you are. Tuesday - Friday 9:00 - 1:00, 10:00 - 3:00 pm on weekends. Admission is \$8 for adults and \$6.75 for children 2 to 17.

Bishop Museum (<<www.bishopmuseum.org>>) - Hawaiian and Polynesian history, science, planetarium, and occasional special exhibit. Annual membership is \$40 per year which also gives you free admission to the Maritime Museum (near Aloha Tower) and 10% discount at Borders bookstore.

Polynesian Cultural Center (<<www.polynesianculturalcenter.com>>) - Featuring the largest Polynesian revue of song and dance in the world. You can see islanders reenact war dances, wedding ceremonies, rub sticks to create fire, carve tiki figures, wield fire knives, and climb four-story trees in bare feet. Annual membership fee is \$15 per person which includes admission, IMAX, and Polynesian show. *"It will enrich you culturally in a really fun way."*

TIP

Many attractions such as the Atlantis Submarine, Voyager Submarine, Sea Life Park, and Navatek Whale Watch Cruises have military specials. Periodically check with MWR/ITR for the latest information.

Schofield Barracks:
Kaala Community Activities Center
Phone—655-9971

Ft. Shafter:
Post Shopette, Bldg. #550
Phone—438-1985

Your Visit Makes a Difference: Over the years, more than 11,000 Polynesian students have helped finance their educational dreams while working at the Polynesian Cultural Center. Today, the Center provides jobs and scholarships for nearly 600 Polynesian students, allowing them to attend the adjacent university. After completing their education, many return to their native islands to provide badly needed services and skills. By visiting the Center, you contribute to their dream.

Sea Life Park (<<www.sealifeparkhawaii.com>>) - Get up close and personal with a fantastic array of marine life and make amazing discoveries about the inhabitants of our aquatic world. You can watch the performances or wade right in with the wildlife, play like a pirate or just kick back and watch the thrilling performances. At Sea Life Park, Hawaii's marine life comes alive in a dazzling display that will entertain and delight. Located just 15 miles from Waikiki on Oahu's beautiful and scenic Makapu'u Point, Sea Life Park is a world-class marine attraction perched between the majestic Koolau Mountain Range and breathtaking Makapu'u Beach. See dolphins dance, sea lions sing, and penguins perform in this magical place by the sea. If you have small children and would go to the park more than once a year the price of membership is worth it at \$15 per person. **A portion of the admission price goes towards marine animal rescue and rehabilitation programs.**

Want more? Check out the Oahu **Calendar of Events** at <<<http://www.hawaiieventsonline.com/>>> At this site they show current events for MWR as well as Oahu.



Other Attractions...



Haleiwa

Photo courtesy CL Steenfort

Haleiwa—A quaint and historic town on the North Shore is the best place to watch the sunset. Most people like to catch the view from the upstairs of *Jameson's By the Sea*. Although not really a formal restaurant it is very nice. Haleiwa also has some spectacular beaches, inviting and unique roadside stands and shops (primarily surfboard shops), beautiful scenery, and roaring surf. Haleiwa is proud of its lack of traffic lights, its quaint buildings, small unique shops and restaurants, and "real Hawaii" ambiance. Here you can find Conchs (which they will teach you how to blow), muumuus (long dresses), and other items too.

Hanauma Bay—Once a volcanic crater, Hanauma Bay is now Oahu's most popular snorkeling spot but is also good for sun-bathing and people watching. The water is clear, warm, protected, and has an abundance of marine life. There are two reefs here, an inner reef and an outer reef. The inner reef is good for the novice, the water is calm and fairly shallow (less than 10 ft.); in some places you can simply wade in and put your face in the water. The outer reef is for the more experienced snorkeler. Hanauma Bay is a conservation area (look but don't touch) and it is closed on Tuesdays.

Ko'Olina—a.k.a. JW Marriott Ihilani Resort & Spa at Ko'Olina (<<<http://www.koolina.com>>>) - A AAA Five-Diamond hotel with an award winning spa located on the Leeward coast. It has seven "crystal blue" lagoons and a mile and a half of walking paths along the shoreline. It also has a golf course, pro shop, wedding chapel, and marina. Parking is limited at the lagoons, but it's a nice little place to take the family swimming.

Waimea Falls Park - (<<www.go-atlantis.com>>) Along the North Shore is a great attraction, Waimea Falls Park. Visitors park under large shade trees and walk on a scenic footpath to a high narrow falls that empties into a serene pond. Divers still dive from the top of the falls like they did so many years ago and once a month the park is opened free for moonlight walks back to the falls.

Waimea Beach—One of the most attractive beaches in all of Hawaii; the sand is golden and clean. During the summer this is a good place for the family to swim...as long as the kids are good swimmers. During the winter, the surf pounds on this beach with almost unbelievable force and it is not safe to swim. 35-foot waves are not uncommon. This area of the North Shore is where surfing competitions are staged and where surfers ride waves that curl completely over their heads, and they are in fact inside a water tube. It can be pretty packed so be prepared to park a good distance away and walk in.

Sharks Cove on the North Shore—For the more experienced snorkeler. In the summer this is one of the best snorkeling spots on Oahu and is reported to be the best place to see turtles. One of the ladies in the 125th MI BN Coffee group reported that every time she's gone to Shark's Cove she has seen turtles.

Restaurants and Shops:

Casual Dining:

- **Hong Kong Harbor View Restaurant** (2F of Aloha Tower Market Place) - Best dim sum lunch with great view. \$\$
- **Capricciosa Italian Restaurant** (across the street from Ilikai Hotel, 1778 Ala Moana Blvd., 942-5250) - Great pasta, good for family style dining, 15% Kama'aina discount. \$\$
- **Ramen Nakamura** (Kalakaua Ave., right next to Burberry's in Waikiki) - Great ramen noodles and pot stickers, 15% Kama'aina discount. \$

TIP

The month of MAY is
**National Military
Appreciation Month
(NMAM)**

Check for special pricing at
your favorite spots.



- **Gordon Biersch** (Aloha Tower Market Place) - Good beer, good food, free concerts on Sundays. \$\$
- **Duke's** (Outrigger Waikiki Hotel) - Good seafood, dinner includes salad bar, right on the beach. \$\$
- **Hale Ikena** (Fort Shafter, 438-6712) - Sunday brunch from 10:00—1:00 pm. Adults—\$16.95, children age 6-10—\$10, and children age 3-5—\$6. Compared to the Hale Koa Sunday brunch, the price is cheaper, it's not as crowded, and the food is just as good. It's right on the golf course, and they have outside tables as well as in-door dining.

Fine Dining:

- **Alan Wong's** (1857 S. King Street, 949-2526) - One of the best in Honolulu. Pacific rim food. \$\$\$
- **Roy's** (Hawaii Kai) - Pacific rim food, as good as Alan Wong's. \$\$\$
- **Kahala Moon** (Kahala Mall) - Great food and atmosphere. Special dinner on full moon night. \$\$\$

Best Luau's:

Everyone that I've talked to tended to agree that the best luau's on Oahu are at Germaine's, Paradise Cove, and the Hale Koa. Check them out for yourself.

- **Germaine's Luau** (949-6626 or 941-3338) Featured on ABC's "Good Morning America" and acclaimed "America's Best! Luau" in the book *America's Best 100!*
- **Paradise Cove Luau:** Call 946-1001 or make your reservations on-line at <<<http://www.hawaiiiguide.com/restau~1/luas/paradise/parades.htm>>>
- **Hale Koa:** (955-0555) Tickets may be purchased up to four weeks in advance at the Hale Koa Activities Desk. Danny Couch is the host. He performs his award-winning song "*These Islands*," featured in Hawaii's TV ads worldwide and the theme song for Miss America 2001, *Angela Perez Baraquio* of Honolulu.

High Tea:

- **Sheraton Moana Surfrider** (922-3111) - Awesome tea, beautiful view, and wonderful atmosphere. \$\$
- **Halekulani Hotel** (923-2311)—Wonderful tea, secluded and quiet, but no view. \$\$
- **Aston Waikiki Beachside** (931-2100)
- **Hawai'i Prince Hotel** (956-1111)
- **Waioli Tea Room** (988-5800)

Bakery and Dessert:

- **Saint-Germain** (Pearlridge Mall or 1930 Dillingham Blvd.) Great cake and pastry.
- **Pan-ya** (McCully SC, Wardware House, or Queen St. near AAA office) - Great cake and pastry.
- **Anna-Millar's** (Pearlridge) - Great pies: strawberry, macadamia nut, or banana cream, etc.
- **Ted's Bakery** (Haleiwa) - Great chocolate Haupia (coconut Jell-O) pie.
- **Leonard's** (Kapahulu Ave. or Aiea-Waimalu SC on Kam Hwy) - Great Malasada (doughnut like pastry).
- **Ice Gardens** (Aiea Shopping Ctr. On Moanalua Rd.) - Best shave ice (better than Matsumoto's in Haleiwa)

Shops:

- **Aloha Stadium Flea Market** (Aloha Stadium)—Open on Wednesday, Saturday, and Sunday.—Great place to buy souvenirs, T-Shirts, Aloha shirts, etc.
- **Ross** (various locations) - Discounted clothing, shoes, toys, kitchenware, accessories, etc.

TIP

Be sure to check with MWR/ITR before you buy your tickets anywhere else. Chances are they can save you money.

Kodak Hula Show

One of the best hula shows on the Island and it's free.

Tuesday, Wednesday, and Thursday mornings
10:00 to 11:00 a.m.



- **Costco** (Waipio, Salt Lake, Hawaii Kai) - Need a \$45 annual membership, but many things are cheaper than at the PX (e.g., photo film and development, printer ink cartridges, computer software, books, and music CD's). Disposable contact lenses (*Acuvu*) are \$16.00 box (6 lenses) which is cheaper than mail ordering through someone like Lens Express (\$19.00/box) or *Lenscrafters* (\$25/box). You'll save more than \$45 over a period of a year.
- **Waialele Premium Outlets** (Sand Island or Red Hill Housing area near AMR) - Not only is the price lower than AAFES, but they will give you \$3 off after you spend \$100 worth of gas. Ask for the "*Frequent Shopper Gas Card*".
- **Art Show** (Outside of Honolulu Zoo) - Open Saturday and Sunday—Local artists selling photos and pictures.
- **Boutiki**—Located at 640 Club Road on Pearl Harbor Naval Station (just past Scott Pool) is run by volunteer military wives. Here you can buy a variety of knickknacks including seasonal items like Christmas ornaments, wall hangings, candle holders, etc. Hours are 9 a.m. to 1 p.m. Monday, Friday, and the 1st and 3rd Saturdays of the month, and 3 p.m. to 7 p.m. the 3rd Wednesday. The Boutiki is a non-profit shop that donates net proceeds to local charities that serve military families. For more information or to volunteer call 422-6662.

Military Vacation Rentals

Location	Island	Telephone Number	Internet Website
Barbers Point Beach	Oahu	(808) 682-2019	http://www.mwrph.navy.mil/Services/tickets.html
Barking Sands Pacific Missile Range	Kauai	(808) 471-6752	www.pmrh.navy.mil
Bellows Air Force Station	Oahu	(808) 259-8080	www.bellowsaifs.com
Hale Koa Hotel	Oahu	(808) 955-0555	www.halekoa.com
Kaneohe Marine Corps Base	Oahu	(808) 254-2806	http://www.mccshawaii.com/cottages.htm
Kilauea Military Camp	Big Island	(808) 438-6707	www.kmc-volcano.com
Hickam AFB Services	Oahu	(808) 449-1030 x234	www.hickamservices.com
Waianae Army Recreation Center	Oahu	(808) 696-4158	

- ❖ **Barbers Point Beach Cottage Rentals** -Cost Guard Point (Kalaeloa, Southside of Oahu). They have beach cottages for rent for short or long term stays.
- ❖ **Barking Sands** (On the Island of Kauai) has cottages equipped with cable TV's, washer/dryer, towels, microwave, linen and outdoor BBQ. Bedrooms are accommodated with one queen and two twin size beds as well as a sofa bed in the living room. They have an on-line rental application at their web-site.
- ❖ **Bellows AF Station** (Waimanalo, east side of Oahu) - Exclusively for military families. They have cabins as well as space for camping, and a nice sandy beach. The two-bedroom cabins have microwaves as well as a stove, full size refrigerator and coffee pot. There are dishes and cooking utensils for four people. Each campsite has a BBQ grill and a picnic table, but there are rules about how many tents and people are allowed per camp site...check out their website for more information. There's no electricity at the campsites, but there are bathhouses with warm water nearby. For cabin reservations call 259-8080, for camping reservations 259-4121.

Directions: Take H-1 Freeway going East to Pali Highway Exit 21A. Go north on Pali Highway (Hwy 61). Turn right onto Kalaniana'ole Highway (Hwy 72). On the left side is Castle Medical Center. There is a green



Waimanalo sign. It's approximately 4 miles to Bellows AFS. Bellows AFS is on the left side of the road and is marked by a brown sign with small palm trees next to it. If you get to McDonald's, you've gone too far - turn around and go back!

- ❖ **Hickam Lodging (The Royal Alaka'i Inn)** - Lodging at Hickam is not right on the beach, but Hickam Harbor's not too far away and it's still a great place for swimming, sunbathing, sailing, kayaking, water skiing, and picnicking. The beach area is small, but it does have a lifeguard and is equipped with bathhouse facilities. Reservations can be made for picnic cabanas, Foster Point picnic area, and Honeymoon Beach by calling the Outdoor Recreation Office at 449-5215
- ❖ **Kaneohe Marine Corps Base Hawaii** (Kaneohe Bay, 254-7667) All of the cottages at Kaneohe have a full kitchen, two bedrooms, living and dining areas, cable TV, lanai, BBQ grill and daily maid service. Kaneohe Bay Cottages are the perfect getaway for the whole family and out-of-town guests. Call for reservations or go to <<<http://www.mccshawaii.com/cottages.htm>>> and send them an e-mail.

Directions: Stay on H3 until it ends at the Marine Corps Base at Kaneohe Bay. Building #3038.

- ❖ **Kilauea Military Camp** (Kilauea National Park on the Big Island) is a get-away resort on top of Kilauea summit. It has 68 cabins and cozy apartments with fireplaces. They have a golf course, a Bowling Center, a Cafeteria, a Lounge, Banquet facilities, a General Store, a Recreation Lodge, and other comforts. Reservations are based on a first-come first-serve basis regardless of rank. To e-mail reservations go to: <<reservations@kmc-volcano.com>>

- ❖ **Pacific Missile Range Barking Sands** (Kauai, DSN: 471-6752, COMM: 335-4752) (Toll free, no need to dial area code) Reservations must be made by filling out an application, there's one on-line at: <<<http://www.pmr.f.navy.mil/>>>

- ❖ **Waianae Army Recreation Center** (85-010 Army Street, Pokai Bay, west side of Oahu) - Exclusively for military families. They offer two and three-bedroom cabins for rent based on cabin location and the military member's rank. The cabins are air-conditioned and are equipped with cable TV, telephones, and fully equipped kitchens. They also feature BBQ grills and lanai's or decks.

Directions: Take H-1 West to Waianae. This will eventually turn into Highway 93. Stay in the LEFT lane and watch for these LANDMARKS: Pizza Hut on the right will place you in Waianae town. On your LEFT you should pass a 7-11 and the FIRST of TWO Aloha Gas stations. One block from that will be Waianae Police Station. After the next light, you will see Old Government Road. ARMY STREET is the second left after the light, immediately after the SECOND Aloha Gas station. Go all the way down to the Security Gate.

TIP

Pick up a free copy of "Hawaii Military Guide" at the PX or ACS. It has maps of military bases, phone numbers, and other useful information.

Arts and Craft Shops



The Schofield Barracks Arts and Crafts Center, located in Building # 572 on Trimble Road offers a variety of classes including ceramics, framing, laser engraving, woodcrafts, and photography. In addition to classes they will also do custom framing and engraving for you. Keep them in mind for your special group projects. The 125th MI BN held one of it's Coffees there and we all painted ceramic tiles. Even though I didn't have much of a knack for this particular project it was still a lot of fun. For more information on available classes stop by the Center or call 655-4202.

The Fort Shafter Arts and Crafts Center is located in Building # 339 on Fort Shafter. In addition to ceramics and woodcrafts they also offer some unique classes in stained glass, quilting, and pottery. For more information call 438-1315/1071.



Hale Koa, or *House of the Warrior* is an 817 room, world-class resort hotel and favorite R&R destination for our country's military personnel. The Hale Koa is located on Fort DeRussy, right on Waikiki beach.

There is a significant savings for the military family spending a night at the ocean-side Hale Koa vs. other resorts on Waikiki. **You don't have to be staying there to enjoy the amenities**, but bring your own towel if you plan to swim in one of the hotels three pools...hotel towels are for guests only.

At the Hale Koa Hotel, being in Paradise doesn't just refer to the spectacular surroundings, but the total Hale Koa experience. Enjoy amazing shows and incredible dining in a setting that'll have you pinching yourself to make sure you're not dreaming.



Hale Koa Open Air Lobby
Photo courtesy of Steve Ryder, JSR Systems

The Hale Koa offers a traditional Hawaiian luau with full table service, something

other luau's don't offer. They also offer a lot of other entertainment. You can visit the Warriors Lounge to sing karaoke on stage or dance the night away to live bands. Warriors offers live entertainment nightly, no cover charge and great drink prices.

More great entertainment can be found at the ocean-side Barefoot Bar, home of "*Hawaii's Best Mai Tai*." You can watch the sunset while listening to the island songs of Lopaka Brown. He performs nightly, except Monday and Thursday, from 5-9 p.m.



Waikiki Boardwalk
Photo courtesy - C L. Steenfott

Reservations for all dinner shows are accepted up to four weeks in advance and can be charged by phone to major credit cards.

Room rates are based on pay grade and duty status as well as room location, but generally run from \$66 to \$169.

Hale Koa Hotel at Fort DeRussy
2055 Kalia Road
Honolulu , HI 96815-1998
Phone 1-808-955-0555

Reservations:

CONUS: 1-800-367-6027

Local: 955-0555

E-mail: reservations@halekoa.com

General Information E-mail: information@halekoa.com

For more information visit their website at: <http://www.halekoa.com/>.

More Information:

Restaurants & Lounges

- Hale Koa Room
- Bibas
- Koko Cafe
- Happy's Snack Bar
- Snack Shack
- Warriors' Lounge
- Pool Snack Bar
- Barefoot Bar
- Sunday Brunch
- Coffee Cart

Fitness Center

3 Swimming Pools - including one adults-only and kiddie pool
Tennis Courts
Racquetball & Handball Courts
Outdoor Walking/Running

Track
Video Game Room
Covered Parking (for a fee)

Dinner Shows

Tuesday Night Magic
Tama's Polynesian Revue
Hale Koa Luau

Guest Services

DeRussy Caboose
Post Exchange
Safety Deposit Boxes
Self-Service Laundry
Tour & Travel Desk
Video Rental
U.S. Post Office (two within walking distance)
Banking - ATM
Barber Shop/Beauty Salon
Car Rental

Church Services
Dining Reservations
Early Maid Services
Fax Service
Florist
Jewelry Shop
Laundry & Dry Cleaning Service
Logo Shop
Lost & Found
Massage Therapy
Messaging/Voice Mail

Location

The Hale Koa is located near the beginning of Waikiki, within walking distance or a short bus ride from major shopping areas, including Ala Moana Mall, the largest outdoor shopping center in the

world, and the International Marketplace.

Airport Transportation

Is available at airline baggage claim. Taxis, airport buses and car rentals are readily available. The Hale Koa Hotel does not offer airport service. If you are driving from the airport or elsewhere on-island, a map is provided for your convenience.

Things To Do

- Aloha Fridays
- Hula Lessons
- Garden Tour
- Ft. DeRussy Army Museum

<http://www.halekoa.com/>



On the Beach... There are so many beaches on Oahu that sometimes it's difficult to know where to go, and no matter who you talk to it seems that everyone has a different opinion on which is the best. The beaches here in Hawaii come in all different shapes, sizes, colors, and atmospheres or activities. It would be almost impossible to address the merits of each beach, but we have included some here to get you started.

Waikiki Beach: Probably the most widely known beach on Oahu is Waikiki Beach in Honolulu. It's only a narrow 1 1/2 mile long expanse of imported sand (from Molokai) at the base of a string of high-rise hotels, but it still attracts some five million visitors a year. Waikiki is great for swimming, surfing, canoeing, diving, sailing, snorkeling, and fishing. You can rent just about anything you need right there on the beach, and there are showers, restrooms, life-guards, grills, and picnic tables available. There are other sites to

see occasionally on Waikiki too. When our family first got here, we took a stroll on the beach at sunset and came across a film crew shooting some scenes for *Baywatch Hawaii*, and just recently an episode of *Wheel of Fortune* was filmed there. A soldier from the local area was chosen to be a contestant.

Ala Moana Beach Park: A mile long stretch of golden sand on Mamala Bay (very close to Waikiki) is one of the Island's most popular playgrounds. It has a man-made beach that was created in the 1930s by filling a coral reef with sand from the Waianae Coast. It has its own lagoon, yacht harbor, tennis courts, music pavilion, bathhouses, picnic tables, and open green spaces suitable for the many picnics hosted on its grounds. The water is calm almost year-round and is protected by black lava rocks set offshore. We think the shallow calm waters make it a nice place to take the kids.

Frommer's 2000: "Lanikai Beach on O'ahu is "Too gorgeous to be real, this stretch along the Windward Coast is one of Hawaii's postcard-perfect beaches—a mile of golden sand as soft as powdered sugar, bordering translucent turquoise waters. The year-round swimming-pool-calm waters are excellent for swimming, snorkeling, and kayaking. To complete the picture are two tiny offshore islands that function not only as scenic backdrops, but also as bird sanctuaries."

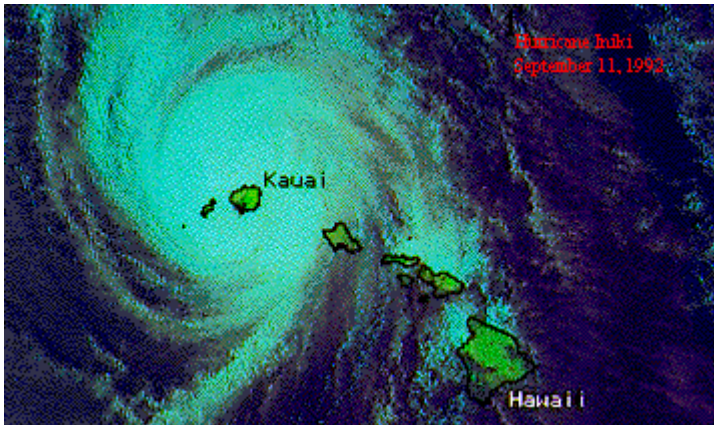
Hanauma Bay: Is a popular snorkeling spot. It is actually a volcanic crater with a broken sea wall and has an abundance of marine life. Hanauma Bay is a conservation district, you may look, but not touch, and you should never take any of the marine life.



Check with MWR/ITR for a Trolley Map Guide and Bus information.

Personal Enrichment

Joint Women's Conference (Annual)—Held in October at Hickam AFB. Pre-registration is required. "A forum for military wives that will enrich, empower, uplift, enlighten, motivate, and strengthen them in their roles as women, wives, mothers, professionals, and community leaders." It offers a wide variety of workshops such as hobbies, Hawaiian, cooking, philosophy, military life, etc. Watch for announcements.



Hurricanes. Since 1959, three hurricanes have hit Hawaii, with *Iniki* in 1992 becoming Hawaii's worst natural disaster.

Hurricanes personally impact everyone throughout Hawaii. We all need to be aware and prepare for Hurricane Season which generally runs from June 1 - November 30 when the Islands are most at risk. Keep in mind though, statistics show that a storm can occur at any time of the year. Just one storm striking the Islands could be devastating. In addition to high winds, we also need to remember that inland flooding and storm surge can also wreak havoc.

Everyone should have an action plan in the event that a hurricane strikes the islands. Every home should have a survival kit which should be checked before the start of the hurricane season, and everyone should take action when advised. On post, the Quads are designated as Emergency Shelters for the housing areas.

WATCH

When conditions are favorable for severe weather, a WATCH is issued.



Siren on Schofield Barracks
Photo courtesy CL Steenfott

WARNING

When severe weather is imminent or occurring, a WARNING is issued.

Weather "Watch" vs. Weather "Warning"

	"WATCH"	"WARNING"
SEVERE THUNDERSTORM	Severe thunderstorms are possible in your area.	A severe thunderstorm is imminent or has been indicated by Doppler radar or reported by storm spotters.
FLASH FLOOD OR FLOOD	Flash flood or flooding is possible in your area.	Flash flooding or flooding is occurring or imminent. Take necessary precautions immediately!
TORNADO	Tornadoes are possible in your area. Remain alert for approaching storms.	A tornado is imminent or has been indicated by Doppler radar or reported by storm spotters. Move to your pre-designated place of safety immediately!
HURRICANE/TYPHOON	Hurricane/Typhoon conditions are possible in the specified area of the Watch.	Hurricane/Typhoon conditions are expected in the specified area of the Warning, usually within 24 hours. Complete storm preparations and evacuate if directed by officials immediately. Take your emergency kit with you.



Tsunamis.

Information in this section is used with permission from the Pacific Tsunami Museum, Inc., Hilo, HI. Please visit their website for more fascinating information on tsunami's at <<<http://www.tsunami.org/index.htm>>> or visit them in person...they have a variety of photos, artifacts, and information on tsunami's, including those that have hit Hawaii. All materials on their website are Copyright © 1996-2001 Pacific Tsunami Museum, Inc. Last revised: June 2001.

Tsunami'...there's that word again... now, what is it? Growing up in the Midwest, I was used to hail storms,

April is Tsunami Awareness Month

A lot of the local libraries have special programs in April on Tsunami Awareness.

Check them out!

blizzards, floods, and tornados (well as used to them as anyone could get). As part of a military family living in many different locations over the past 20 years, I also got used to preparing for hurricanes, monsoons, and other assorted weather phenomenon, but Hawaii is the only place that I've lived where I've had to be concerned about tsunamis. So, the experience is new to me. Well, after talking to other members of the 125th MI BN, I've discovered that I'm not alone. Many of you may not know what a tsunami is or how to react in an emergency. So, I set out to rectify this and I discovered a wealth of information out there. I've included a lot of information here for your benefit and I hope you find it useful, but at the very least please try to read the bold print. You'll be seeing the word tsunami (and hearing it) all over the islands, particularly during the month of April. Hawaii is one of five states

that proclaim April as the month to remind the public to be prepared for natural disasters. Washington, Oregon, California, and Idaho join Hawaii in sponsoring public activities that focus on tsunamis, earthquakes, and other potentially devastating events.

What is a tsunami? A tsunami is a series of destructive ocean waves that can affect shoreline areas with little or no warning. It's the same thing as 'tidal wave', but 'tsunami' is the preferred term used these days in an effort to avoid confusion regarding normal tides. The term 'tidal wave' is normally found in old movies and textbooks.

Unlike hurricanes or tornadoes, tsunamis have no season. They can strike anywhere along the coast, any time of day, any season of the year. They are not heralded by a drastic change in the weather. It could be a gorgeous sunny day or a starlit night.

Tsunamis have nothing to do with tides or storms. They are generated by violent water displacement on the ocean floor. There could be an underwater landslide, a major earthquake, or a freak cosmic strike from Space.

Even if you know a lot about tsunamis and read tsunami scientific data, unless you take those statistics seriously, when that next tsunami wave

train arrives on the horizon, you could become another one of those statistics. There is definitely another tsunami out there. When is it coming? George Curtis, tsunami scientist at UH-Hilo, says, "*Any time now!*"

Unlike hurricanes or tornadoes, tsunamis have no season. They can strike anywhere along the coast, any time of day, any season of the year.

Have you designed an evacuation plan for your family? Do you live around Ewa Beach? Do you like to go snorkeling at Hanauma Bay? Do you ever shop in Waikiki? Well, if you do you might want to think ahead about your escape route should you hear the sirens. **Review the evacuation maps in front of the telephone book for these areas BEFORE you need them.** If one hit today would you know how to evacuate from work? From home? What about your children's schools? Find out what roads will be closed when there is a tsunami alert.

* When evacuation boundaries are drawn along streets and roadways, they are considered to be safe from wave action.

Tsunami Watch vs. Warning

Watch:	If a "watch" has been issued, tsunamis are possible; get ready. <i>Check out the tsunami evacuation map in the front of your telephone book BEFORE you need to use it.</i>
Warning:	If a "warning" has been issued, you should leave coastal areas immediately! Go to higher ground! If you are in a safe place, stay there and wait for the all-clear announcement.
Sirens:	If the Civil Defense sirens sound at any time other than during the test period on the first working day of the month, turn your radio to one of the local radio or TV stations for more information.



- * Steel and/or concrete buildings of six or more stories in height should provide adequate protection if you move to the third floor or above.

What to Do When a Tsunami WATCH Is Issued

- **Listen to a NOAA Weather Radio, Coast Guard emergency frequency station, or other reliable source for updated emergency information.** As the energy of a tsunami is transferred through open water, it is not detectable. Seismic action may be the only advance warning before the tsunami approaches the coastline.
- **Check your Disaster Supplies Kit.** Some supplies may need to be replaced or restocked.
- **Locate family members and review evacuation plans.** Make sure everyone knows there is a potential threat and the best way to safer ground.
- **If you have special evacuation needs (small children, elderly people, or persons with disabilities), consider early evacuation.** Evacuation may take longer, allow extra time.
- **If time permits, secure unanchored objects around your home or business.** Tsunami waves can sweep away loose objects. Securing these items or moving them inside will reduce potential loss or damage.
- **Be ready to evacuate.** Being prepared will help you to move more quickly if a tsunami warning is issued.

What to Do When a Tsunami WARNING Is Issued

- **Listen to a NOAA Weather Radio, Coast Guard emergency frequency station, or other reliable source for updated emergency information.** Authorities will issue a warning only if they believe there is a real threat from tsunami.

- **Follow instructions issued by local authorities.** Recommended evacuation routes may be different from the one you use, or you may be advised to climb higher.
- If you are in a tsunami risk area, do the following:
 - * **If you hear an official tsunami warning or detect signs of a tsunami, evacuate at once.** A tsunami warning is issued when authorities are certain that a tsunami threat exists, and there may be little time to get out.
 - * **Take your Disaster Supplies Kit.** Having supplies will make you more comfortable during the evacuation.
 - * **Get to higher ground as far inland as possible.** Officials cannot reliably predict either the height or local effects of tsunamis. Watching a tsunami from the beach or cliffs could put you in grave danger. If you can see the wave, you are too close to escape it.

What to Do After a Tsunami

- **Continue listening to a NOAA Weather Radio, Coast Guard emergency frequency station, or other reliable source for emergency information.** The tsunami may have damaged roads, bridges, or other places that may be unsafe.
- **Help injured or trapped persons. Give first aid where appropriate.** Call for help. Do not move seriously injured persons unless they are in immediate danger of further injury.
- **Help a neighbor who may require special assistance--infants, elderly people, and people with disabilities.** Elderly people and people with disabilities may require additional assistance.

tance. People who care for them or who have large families may need additional assistance in emergency situations.

- **Use the telephone only for emergency calls.** Telephone lines are frequently overwhelmed in disaster situations. They need to be clear for emergency calls to get through.
- **Stay out of the building if waters remain around it.** Tsunami waters, like flood waters, can undermine foundations, causing buildings to sink, floors to crack, or walls to collapse.
- **When re-entering buildings or homes, use extreme caution.** Tsunami-driven flood waters may have damaged buildings where you least expect it. Carefully watch every step you take.
 - * **Wear sturdy shoes.** The most common injury following a disaster is cut feet.
 - * **Use battery-powered lanterns or flashlights when examining buildings.** Battery-powered lighting is the safest and easiest, preventing fire hazard for the user, occupants, and building.
 - * **Examine walls, floors, doors, staircases, and windows to make sure that the building is not in danger of collapsing.**
 - * **Inspect foundations for cracks or other damage.** Cracks and damage to a foundation can render a building uninhabitable.
 - * **Look for fire hazards.** There may be broken or leaking gas lines, flooded electrical circuits, or submerged furnaces or electrical appliances. Flammable or explosive materials may come from upstream. Fire is the most frequent hazard following floods.

* **Check for gas leaks.** If you smell gas or hear a blowing or hissing noise, open a window and quickly leave the building. Turn off

Return home only after local officials tell you it is safe. A tsunami is a series of waves that may continue for hours. Do not assume that after one wave the danger is over. The next wave may be larger than the first one.



the gas using the outside main valve if you can, and call the gas company from a neighbor's home. If you turn off the gas for any reason, it must be turned back on by a professional.

- * **Look for electrical system damage.** If you see sparks or broken or frayed wires, or if you smell burning insulation, turn off the electricity at the main fuse box or circuit breaker. If you have to step in water to get to the fuse box or circuit breaker, call an electrician first for advice. Electrical equipment should be checked and dried before being returned to service.
- * **Check for sewage and water line damage.** If you suspect sewage lines are damaged, avoid using the toilets and call a plumber. If water pipes are damaged, contact the water company and avoid using water from the tap. You can obtain safe water from undamaged water heaters or by melting ice cubes.
- * **Use tap water if local health officials advise it is safe.**
- * **Watch out for animals, especially poisonous snakes, that may have come into buildings with the water. Use a stick to poke through debris.** Tsunami flood waters flush snakes and animals out of their homes.
- * **Watch for loose plaster, drywall, and ceilings that could fall.**
- * **Take pictures of the damage, both of the building and its contents, for insurance claims.**
- **Open the windows and doors to help dry the building.**
- **Shovel mud while it is still moist to give walls and floors an opportunity to dry.**
- **Check food supplies.** Any food that has come in contact with flood waters may be contaminated and should be thrown out.

A Bit of Tsunami History: Many thanks to the Pacific Tsunami Museum for allowing us to use the following information. Please visit them on-line at www.tsunami.org.

In Hilo during the 1994 tsunami warning, an 8.2 earthquake off the coast of Japan resulted in a tsunami evacuation throughout the state.

It was reported that 400 surfers were in the water around Oahu before the tsunami warning was canceled. Although the tsunami was considered by many to be a 'false alarm', it was not. As of yet, scientists are unable to determine what the height will be of approaching tsunami waves. Never hang around to watch tsunami waves!

April 1, 1946, a 7.3 earthquake in the Aleutian Islands generated a tsunami which struck the Hawaiian Islands. The tsunami claimed the lives of 159 people in the state of Hawai'i (122 from the Big Island) and caused \$26 million in damages.

November 5, 1952, an 8.2 earthquake occurred off the Southeastern coast of the Kamchatka Peninsula of the Russian Far East. Tsunami waves were generated and spread across the North Pacific at more than 500 miles per hour.

March 9, 1957, an earthquake measuring 8.3 occurred in the Aleutian Islands generating a tsunami. Waves up to 75 feet high were reported on Umnak Island. The tsunami traveled 2,440 miles across the Pacific, at a speed of just under 500 miles per hour, and first



This automobile was abandoned by its driver on Kamehameha Highway at Waialua Bay, O'ahu during the tsunami. ~ 1957
Photo: Courtesy of the International Tsunami Information Center.

reached Kauai at 9 a.m.

May 23, 1960, the tsunami that struck was generated from a 8.3 earthquake in Chile. Much of the damage occurred in Hilo, Hawai'i, where 61 people were killed, 537 buildings destroyed and damages totaled over \$23 million.

"Suddenly I heard a shout, 'Big wave!' The streetlights around us exploded almost in the same instant. I looked up and saw a locally well known fishing boat coming up over the Wailoa Bridge."

-- Susan Maeda Veriato on the 1960 tsunami in Hilo, as told to her son Travis

November 29, 1975, a 7.2 earthquake occurred in the area of Kalapana, Hawai'i. The earthquake generated a tsunami with a maximum height of over 47 feet. The earthquake and tsunami took the lives of two campers and caused property damage estimated at \$4.1 million.



July 17, 1998, an earthquake occurred at the western end of the Bismarck Sea and measured 7.0 on the Richter Scale. About 20 minutes later, a tsunami wave crashed ashore and inundated a 20-mile stretch of beach from west of Aitape to the village of Serai. There was a total of three devastating waves. Villagers were crushed in their huts, buried under sand and debris, and many drowned. In all, 2,202 people lost their lives and 1,000 more were injured. A total of 10,000 survivors lost their homes and personal possessions.

The last major Pacific wide tsunami occurred in 1964. The rare occurrence of a Pacific wide tsunami in recent times makes them increasingly important to understand as more and more people live and play in coastal areas. Many people are not aware of the actual threat tsunamis pose to coastal areas throughout the Pacific. This section has been designed to answer many of the common questions concerning the nature of tsunamis, their occurrence here in Hawaii and the Pacific region, and what scientists and civil authorities have done to improve our understanding and prevent loss of life from this destructive natural phenomenon.

What does the word tsunami mean? A tsunami is a Japanese word which translates as "harbor wave," now used internationally to refer to a series of waves traveling across the ocean with extremely long wavelengths (up to hundreds of miles between wave crests in the deep ocean). When these waves approach shore, the speed of the wave decreases as they begin to "feel" the bottom. It is at this time that the height of the wave drastically increases. As the waves strike shore they may inundate low-lying

coastal areas resulting in mass destruction and in many instances loss of life. Often a tsunami is incorrectly referred to as a tidal wave. Tidal waves are simply the periodic movement of water associated with the



How fast does a tsunami travel?

Average of 99 m per second

- In 1000 m of water—356 km/hour
- In 5039 m of water—800 km/hour.
- In 6000 m of water—873 km/hour.

rise and fall of the tides produced by the gravitational attraction of the sun and moon. Tsunamis have no connection with the weather nor with tides.

What causes a tsunami? Oceanographers often refer to tsunamis as seismic sea waves as they are usually the result of a sudden rise or fall of a section of the earth's crust under or near the ocean. A seismic disturbance can displace the water column, creating a rise or fall in the level of the ocean above. This rise or fall in sea level is the initial formation of a tsunami wave. Tsunami waves can also be created by volcanic activity and landslides occurring above or below the sea surface. These types of activity produce tsunamis with much less energy than those produced by submarine faulting. The size and energy of these tsunamis dissipates rapidly with increasing distance from the source, thus resulting in more local

devastation.

How is a tsunami wave different from a normal wave? The waves you see at the beach are generated by wind blowing over the sea surface. The size of these waves depends on the strength of the wind creating them and the distance over which it blows. Generally the distance between these waves, known as the wavelength, ranges from a couple of feet to perhaps a thousand feet. The speed of these waves as they travel across the ocean ranges from a few miles an hour up to sixty miles an hour in some instances.

Tsunami waves resulting from physical mechanisms behave much differently than wind generated waves. The magnitude of the disturbance causing the tsunami is the primary factor influencing the size and strength of the waves. The height of the wave when it is generated is very small, usually less than a few feet. The distance between successive wave crests or the wavelength however, is much larger than that of a normal wave and may be hundreds of miles apart. Depending on the depth of the water in which the tsunami is traveling, it may attain speeds of up to 500 miles an hour.

What is run-up? When a tsunami approaches a coastline, the wave begins to slow down and increase in height, depending on the topography of the sea floor. Often the first signs of a tsunami are a receding water level caused by the trough of the wave. In some instances though, a small rise in the water level just before the recession has been observed. Regardless, the incoming wave approaches much like the incoming tide though on a much faster scale. The maximum vertical height to which the water is observed with

April 1, 1946. Tsunami waves crossed the ocean from the north. Twenty-five miles north of Hilo on the Laupahoehoe peninsula, children were just arriving for school. They were delighted by the fish flopping on the bare ocean floor as the water was sucked out by the tsunami waves looming on the horizon (a run-up). Children scampered down to the shore to get a closer look. The waves came in with a vengeance...

...wrapped around the peninsula and boiled across the meadow where children were frantically running to escape. Friends and family watched helplessly from the pali above as children and adults were sucked out to sea.



reference to sea level is referred to as run-up. The maximum horizontal distance that is reached by a tsunami is referred to as inundation.

Do all oceans have tsunamis?

Yes. Tsunamis have been recorded to occur in all the major oceans of the world. However, this phenomenon is mainly restricted to the Pacific basin, an area surrounded by volcanic island arcs, mountain chains and subduction zones earning the nickname the "ring of fire," as it is the most geologically active area on the planet. The amount of activity in this region makes it much more susceptible to submarine faulting and subsequent tsunami events; whereas the Indian and Atlantic oceans are far less geologically active, with some exceptions, and therefore the occurrence of tsunamis is rare.

How are tsunami wave heights measured? The wave height of a tsunami can be highly variable in a local area depending on the under-



The highest, reliably measured tsunami on record occurred in Lituya Bay, Alaska. This unusual event was caused by a massive landslide that fell into the bay on July 9, 1958. The resulting wave surged up the slope on the opposite side of the narrow bay to a height of 518 m (1,700 ft)!

water topography, orientation to the oncoming wave, the tidal level, and the magnitude of the tsunami. Because direct physical measurement of a tsunami wave would be a life threatening event, the most common method for determining tsunami wave height is by measuring the run-up, the highest vertical point reached by the wave. Run-up heights are measured by looking at the distance and extent of salt-killed

vegetation, and the debris left once the wave has receded. This distance is referenced to a datum level, usually being the mean sea level or mean lower low water level. The reference to mean lower low water is more significant in areas with greater tidal ranges such as in Alaska, where a smaller tsunami wave can be more devastating during a high tide than a larger wave at low tide.

How long does it take a tsunami to reach land? Once generated, a tsunami wave in the open ocean can travel with speeds greater than 500 miles an hour. These waves can travel across the Pacific Ocean in less than one day. Locally generated tsunamis can reach coastlines in just minutes.

What is the Tsunami Warning System? The lack of a warning during the 1946 tsunami that devastated many coastal areas in Hawaii, led scientists and governmental agencies to establish the Pacific Tsunami Warning System (PTWS), for the Hawaiian Islands and United States territories in the Pacific by 1948. The main objectives of this system are: to detect and locate the existence all possible tsunami causing earthquakes by the use of properly monitored seismographs, to ensure that a tsunami actually exists by measuring water level changes at tide-gauging stations located throughout the Pacific, and finally, to determine the time of arrival of the tsunami and to provide an adequate warning for evacuation procedures.

What is the difference between a Tsunami Watch and a Tsunami Warning? A Tsunami Watch is automatically declared by the warning center for any earthquake having a magnitude of 7.5 or larger on the Richter scale (7.0 or larger in the Aleutian Islands) and located in an area where a tsunami can be generated. Notification of and Civil Defense agencies begins, followed by

limited public announcements by the local media. Data from tidal gauge stations is awaited for confirmation of the actual existence of a tsunami.

Reports on wave activity from the tide-gauging stations nearest to the earthquake epicenter is requested by the warning center. If the stations report that there is no observed tsunami activity, the Tsunami Watch is canceled. If these stations report that a tsunami has been generated, a Tsunami Warning is issued for areas which may be impacted in the next hour. At this time, the public is informed of the ensuing danger by the emergency broadcast system. Evacuation procedures are implemented, and sea going vessels are advised to head out to sea, where in deep waters they will not be affected by the tsunami.

How many warnings have been issued by the Pacific Tsunami Warning Center since it was established? The Pacific Tsunami Warning Center has issued a total of 20 warnings since it was first established in 1948. Of these 20, 5 resulted in significant Pacific-wide tsunamis. Even though all significant Pacific-wide tsunami events have been detected since 1948, 61 people perished when they failed to heed the warning for the 1960 tsunami that struck Hilo. Since 1964, there have been no significant Pacific-wide tsunami events.

What should I do or not do in a tsunami warning? Because a tsunami can strike at any time, being adequately prepared and knowing what to do beforehand could save your life. Hawaii State and County Civil Defense agencies provide maps of evacuation zones and information on how to be prepared for this type of natural disaster in the front pages of the telephone book. If you are at the beach and you feel an earthquake or observe a rapid withdrawal of the sea and think a tsunami may be coming, head for



higher ground immediately. When a tsunami warning has been issued do not attempt to use the telephone or head to low-lying areas to view the oncoming waves. Remember, tsunamis travel at very fast speeds across the ocean; therefore once a warning has been issued you should evacuate immediately.

Can the arrival time of a tsunami be accurately predicted?

When a tsunami is generated offshore the wave will behave as a shallow water wave. A shallow water wave is one that travels through water having a depth less than 1/20 of its wavelength. Knowing that the average ocean depth is roughly three miles, oceanographers can determine the speed of the tsunami, and calculate the time it will take to travel between any two points. This information has led to the development of travel-time charts that make it possible to predict the arrival time of a tsunami

wherever it is generated. Due to the high speeds of these waves, a tsunami can travel across the Pacific Ocean in less than one day! Areas near the epicenter of earthquakes, landslides or volcanic activity are most vulnerable to the effects of a tsunami as they cannot be properly warned by the Tsunami Warning Center of the coming danger.

What has been the most destructive tsunami to strike the Hawaiian Islands in recent history?

Early in the morning on April 1, 1946, an earthquake with a reported magnitude of 7.1 occurred in the Aleutian Islands off of Alaska. Almost five hours later the largest and most destructive tsunami waves in reported history struck the Hawaiian Islands. Maximum run-ups were reported to be 54 feet in Molokai, and 55 feet in Pololu Valley on the Big Island. Waves in some areas penetrated more than half a mile inland. Between wave crests, the draw-down is reported to have exposed some areas of the seafloor 500 feet

in the seaward direction. A total of 159 tsunami-related fatalities resulted from this destructive event. Many were curious school children who ventured into the exposed reef area, not knowing the receding water to be a sign of an approaching tsunami. No warning was possible nor given for this tsunami.

How many Pacific-wide tsunamis have struck the Hawaiian Islands in recent history?

This century, there have been 13 significant tsunamis impacting Hawaii. These tsunamis were generated by earthquakes occurring along the geologically active margins of the Pacific basin. Maximum recorded runups were 55 feet on the Big Island and 54 feet on Molokai (see above) dur-

Would you know what to do if you heard the sirens indicating a tsunami strike?

ing the 1946 tsunami, and 53 feet in Kauai during the 1957 tsunami. The last Pacific-wide tsunami occurred in 1964.

How many locally generated tsunamis have occurred in the Hawaiian Islands in recent history?

On the Big Island there have been several significant tsunamis resulting from local earthquakes or submarine landslides. The most recent and devastating of these tsunamis occurred in the early morning hours on November 29, 1975. Within a little over an hour, two earthquakes jolted the island. The first, located three miles inland of Kamoamoa village in Volcanoes National Park, had a Richter magnitude of 5.7. The second, centered two miles offshore of the Wahaula heiau also in the park area was much more violent having a Richter magnitude later to be determined as 7.2. The result of this earthquake was a 10 foot subsidence of the shoreline and the second most destructive local tsunami ever to be recorded in Ha-

waii.

Campers in the remote Volcanoes National Park coast at Halape were awakened by the violent shaking of the first quake unknowing that a second and more severe quake would follow in just over an hour later. Some of them had barely gotten back to sleep when the second quake shook so violently that standing was nearly impossible. Within 30 seconds, the first of five tsunami waves struck Halape. Two campers, one an adult with a group of Boy Scouts, the other a fisherman, did not survive. Nineteen others were injured. The maximum runup height was 47 feet at Keauhou Landing and 26 feet at Halape, 1.9 miles to the southwest.

What is the "wrap-around" effect?

Whether a tsunami is generated in the North or South Pacific, it has the potential to effect all shores of the Hawaiian Islands. As large tsunami waves approach the islands, they may refract or bend around the islands and diffract through the channels between the islands as well. The ability of a tsunami wave to bend around and through the islands is called the wrap-around effect. During the wrap-around effect, the energy of the tsunami often decreases resulting in smaller wave heights. Sometimes tsunami waves will reflect off of a land mass instead or bending around, thereby increasing wave height of the approaching wave. Therefore, when a tsunami warning is issued from an earthquake in Chile, Alaska, or Japan, inhabitants along all shores of the Islands should take the necessary precautions.

How many waves are there in a tsunami? A tsunami generally consists of a series of waves, often referred to as the tsunami wave train. The amount of time between successive waves, known as the wave period, is only a few minutes, in



some instances, waves are over an hour apart. Many people have lost their lives after returning home in between the waves of a tsunami, thinking that the waves had stopped coming.

How does a tsunami behave as it approaches land?

When the waves of a tsunami approach land, their appearance and behavior become dependent on several local factors. Two of the most important factors are the topography of the seafloor and the actual shape of the shoreline. As a tsunami encounters shallow waters surrounding the shoreline, its height can increase from a meter or less to over 20 meters. Wave heights can also be increased when concentrated on headlands or when traveling into bays having wide entrances that become progressively more narrow. The presence of an offshore coral reef can dissipate the energy of a tsunami, decreasing the impact on the shoreline. Normal wind swell may ride atop of a tsunami wave thereby increasing wave height.

The image most people have of a tsunami is a large, steep wave breaking on the shore. This image is hardly, if ever, the case. Most tsunamis appear as an advancing tide without having a developed wave face, resulting in rapid flooding of low-lying coastal areas. Sometimes, a bore can form during which an abrupt front of whitewater will rapidly advance inland much similar to the tidal bore formed at the mouth of large rivers.

Another rare event that may result from a tsunami is a standing wave or seiche. A seiche occurs in bodies of water that are partially or completely enclosed, such as Hilo Bay, creating a standing wave that continually sloshes back and forth. The appearance of a seiche would be very similar to

what happens when you place a glass of water on the table; the water rocks back and forth before settling. When a seiche is generated by a tsunami, subsequent tsunami waves may arrive in unison with a seiche resulting in an increase in the draw-down in sea level and a dramatic increase in wave height. Seiche waves may continue several days after a tsunami.

How are inundation/evacuation areas determined?

In Hawaii, methodology was developed at the University for determining the maximum expectable inundation of our shores for worst-case tsunamis, drawing on the records compiled by the Joint Institute for Marine and Atmospheric Research for many years. These historical data are used in mathematical analyses to predict maximum wave heights along the coast; these heights are then used in numerical models involving the topography (land contours) to map the inundation in each location.

In coordination with the Civil Defense officers on each island, a final map is prepared showing the actual evacuation zones. The zones extend inland from the inundation limit to the nearest landmark such as a road, which can be used by public and police to identify the areas which must be evacuated to ensure safety. When the sirens sound, people are routed to safety until officials determine that hazardous wave action has ceased. The zones are published in the front of the telephone





directories for each Hawaiian island.

It is interesting that for Hilo itself, there are such complete (block-by-block) records of inundation (1946-1964) that they have been used to determine evacuation zones with only minor analysis. In fact, these records have been extensively used to test the computer models developed to predict tsunami wave heights and inundation. If the model can adequately re-create a previous event, there is more assurance it can be used to predict future events elsewhere.

Since I don't live in an inundation area why should I be concerned?

The shoreline areas of the Hawaiian Islands are no doubt the main attraction for visitors and residents alike. Much of the state's commerce and recreation involves the surrounding ocean and therefore it is very important for all of us to acknowledge the threat a tsunami would impose on our lives. Even though you may live in an area that is not threatened by a tsunami directly, you would most definitely be impacted by its effects. The last Pacific-wide tsunami to impact Hawaii occurred over 30 years ago. During this period of tsunami quiescence, beach usage especially among children and teenagers has increased. It remains essential that this age group, having never experienced the destructive and deadly forced of tsunamis, be properly informed and aware of what to do and where to go in such an event.

<<<http://www.pmel.noaa.gov/tsunami>>>

	Pacific Tsunami Museum, P.O. Box 806, Hilo, HI 96721, (808) 935-0926, Fax # (808) 935-0842
	Pacific Tsunami Warning Center, 91-270 Fort Weaver Rd., Ewa beach, HI 96706, (808) 689-8207 Ext. 301, Fax # (808) 689-4543
	International Tsunami Information Center, 737 Bishop St. Suite 2200, Honolulu, HI 96813, (808) 532-6422, Fax # (808) 532-5576, email: ITIC@moana.itc.noaa.gov or http://www.pmel.noaa.gov/tsunami
	Pacific Disaster Center, 590 Lipoa Pkwy, Suite #259, Kihei Hawaii 96753, (808) 891-0525



Weather Radio.

National Oceanic and Atmospheric Administration (NOAA) Weather Radio broadcasts National Weather Service warnings, watches, forecasts, and other hazard information 24 hours a day. NOAA Weather Radio now broadcasts warning and post-event information for all types of hazards—both natural (such as earthquakes and volcano activity) and technological (such as chemical releases or oil spills).



NOAA Weather Radio is not just for emergencies. It is a round-the-clock source of weather reports and information to help you prepare for the day ahead. Information including river stages and climatic data is also provided.

National Weather Radio (NWR) service depends on reliable signal reception, which typically extends in about a 40-mile radius from the transmitter, assuming level terrain.

To see if hurricanes or tropical storms may threaten your travel plans or those of your visitors check with

some of the nations' experts, especially the National Weather Service and the National Hurricane Center.

If the FEMA website is down <<<http://www.fema.gov/fema/weathr.htm>>>, check with The Central Pacific Hurricane Center (CPHC), co-located in the National Weather Service Honolulu Forecast Office <<<http://www.news.noaa.gov/pr/hnl/cphc/pages/cphc.shtml>>>.

Check before the storms knock out your power!

TRANSMITTER	FREQUENCY	CALL SIGN
Oahu-Mt. Ka'ala	162.550	KBA 99
Oahu-Hawaii Kai	162.400	WWF 39
Kaneohe	162.400	WWH 21

Oahu's Emergency Alert System (EAS).

The mission of the EAS is to provide reliable communications on short notice to enable the President to address the nation during periods of national emergency.

Voluntary participation is provided by Broadcast TV, Radio, and Cable Providers.

EAS may be activated at State and local levels. EAS operations

must be conducted as specified in State and local EAS plans. Immediately upon receipt of an EAS message, State and local relays must forward the message in accordance with the State and local EAS plans.

EAS alerts are rehearsed on the first day of each month. The sirens sound simultaneously with alert signals on television and radio.



Oahu Civil Defense Emergency
Information Line: 527-5372

Oahu Civil Defense Agency:
523-4121

Hawaiian Electric Company
Troubleline: 584-7961

Board of Water Supply
Troubleline: 527-5200

Verizon Hawaii
Troubleline: 611

Make Plans for Your Pets. Pets are not allowed inside the emergency shelters. In planning for the hurricane season, do not forget your pets. If you evacuate your home, do not leave pets behind. The Humane Society of the US urges pet owners to make arrangements to evacuate their animals. Be sure you have up-to-date identification tags, a pet carrier and a leash for them.



If you must leave your home because it's considered unsafe, it's unsafe for your pet as well. In the event of evacuation, make alternative arrangements for pets, such as with a veterinarian or kennel in a safe location. Send medicine, food, feeding information, and other supplies with them. Keep your pet's vaccinations up-to-date. Many boarding facilities will require proof of current vaccinations.

Contact the Hawaii Island Human Society for suggestions about what to do with your pets during evacuations: 946-2187.



Some things to remember:

Leaving: Assemble the family, leave a note with the time and destination for family members who are not home at the time the emergency is called, wedge the sliding glass doors, secure your home...doors and windows, and turn off the electricity and gas. Be sure to take an emergency kit with you. No pets are allowed in the shelters.



Returning: Exercise caution upon returning home. Check for structural damage, electrical short circuits, gas leaks, broken water lines, and contaminated water or food.

Do NOT evacuate until directed to do so.

Specific instructions for transportation, routes, and other information will be broadcast on HACN, Channel 2.

SHELTER PLAN for Schofield Barracks.

The emergency shelters for Schofield Barracks, Wheeler AAF, Helemano Military Reservation, and the Alimanu Military Reservation are listed on the tables below. The "Handicap Accessible Shelter" for both Schofield Barracks and Wheeler AAF is the SGT Smith Theater. The theater can better accommodate the needs of individuals who are physically challenged. The overflow from the Schofield Inn and the other emergency shelters will also be directed to the theater.

Since every member of the 25th ID(L) does not live on Schofield Barracks, included on the next few pages are Hurricane Shelters for various locations throughout Oahu. Also included are some suggestions for things to include in the Emergency Kit.

I extracted the following information from the HQ 25th ID(L) and U.S. Army Hawaii Disaster Preparedness Operations Plan dated 8 May 2001. **If your quarters are not listed on any of the tables below, call the Oahu Base Support Battalion office at 655-8985.**

SCHOFIELD BARRACKS EMERGENCY SHELTERS

#	SHELTER	SPONSOR UNIT	QUARTERS #
1	A-Quad—Buildings 130-131	115th MI Group	30-38, 49-86
2	B-Quad—Buildings 155-158	125th MI BN and 45th CSG(F)	100-212, 225-229, 300-322, 400-448, 501-560, 701-744, 1800-1896, 1900-1988, 9200-9246
3	C-Quad—Buildings 355-358	2nd BDE	600-639, 1521-1526, 1052-1055, 1180, 3150-3170, 4000-4232, 4701-4721, 4900-5027, 7007-7057
4	D-Quad—Buildings 449-452	3rd BDE	692, 1251-1265, 2133-2200, 1705-1794, 3401-3524, 7000-7006, 9000-9100, 9417
5	E-Quad—Buildings 549-552	DISCOM	3600-3945, 4232-4254, 4466-4559, 9101-9176, 4300-4465, 4600-4637, 4500-4516
6	Building 1492	65th ENG BN	1536-1566
7	Building 3004	SB MP CO	4800-4900

The "Handicap Accessible Shelter" for Schofield Barracks and Wheeler AAF is the SGT Smith Theater.



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WHEELER ARMY AIRFIELD EMERGENCY SHELTERS

#	SHELTER	SPONSOR UNIT	QUARTERS #
13	WAAF Building # 102	AVN BDE	WAAF - 1330-1391, 736-758, 1427-1441, Camp Stover
14	WAAF Building # 100	AVN BDE	WAAF - 601-735
15	WAAF Building # 679	AVN BDE	WAAF - 400-560

HELEMANO EMERGENCY SHELTERS

#	SHELTER	SPONSOR UNIT	QUARTERS #
10	HMR Building P-1	125th SIG BN	HMR - 2166-2172
11	HMR Building #300	125th SIG BN	HMR - 2034-2071
12	HMR Community Center, Building 25A	125th SIG BN	HMR - 2100-2165, 2180-2249

FORT SHAFTER EMERGENCY SHELTERS

#	SHELTER	SPONSOR UNIT	QUARTERS #
	Emergency Relocation Center (Tunnel) - Building # 1292	29th ENG BN (TOPO)	AMR
	Richardson Theater—Building # 300	205th MI BN	Fort Shafter

TRIPLER ARMY MEDICAL CENTER (TAMC) EMERGENCY SHELTERS

#	SHELTER	SPONSOR UNIT	QUARTERS #
	TAMC Gym, Tripler AMC—Building # 300	516th SIG BDE	Rainbow Village (TAMC)

The Iolani Palace was the official residence of King Kalakaua and his Queen, Kapi'olani, from 1882 until the King's death in 1891. The Palace also served as official residence for Kalakaua's sister and successor, Queen Lili'uokalani, until the Hawaiian monarchy was overthrown in 1893. This National Historic Landmark is the only state residence of royalty in the United States. Source: The Friends of 'Iolani Palace.

Visit the Friends of 'Iolani Palace website at <http://alake.lcc.hawaii.edu/OpenStudio/Iolani/> for information on tickets and tour times.



Iolani Palace
Photo courtesy Rose Ann Spieles

They have a Kama'aina day once a month at the Palace,

which is usually the first Sunday of the month, but you should check before you go. On this day both the Palace Galleries and docent-guided tours of the first and second floors of the Palace are free of charge for Hawai'i residents (identification required). Military families are issued Kama'aina Cards when they arrive at Schofield Barracks and therefore qualify as locals for these type of events.



Oahu Emergency Shelters. If you do not see a shelter listed for your off-post area on any of the tables below, check the Oahu Civil Defense Agency (OCDA) Website: <<<http://www.co.honolulu.hi.us/ocda/shelter2.htm>>> or call OCDA at 523-4121 or 523-4122.

Hurricanes are very dangerous! ***Don't wait until the last minute to prepare.*** Knowing what to do ahead of time can make the difference between life and death. There is a multitude of information available on disaster preparedness. Refer to your GTE Telephone Directory for information on civil defense warnings and procedures.



**Shelters will be opened selectively depending on storm severity.
Listen to radio and television for shelter designations and opening schedule.**

Information provided by City and County of Honolulu Building Department and the Oahu Civil Defense Agency.

HAWAII KAI - KAIMUKI - WAIKIKI

Aliiolani Elementary	Anuenue Complex
Hahaione Elementary	Jefferson Elementary
Kaimuki High	Kaimuki Middle
Kaiser High	Kalani High
Kamiloiki Elementary	Liholiho Elementary
Niu Valley Middle	Palolo Elementary
Waialae Elementary	Waikiki Elementary
Wilson Elementary	

MANOA - MAKIKI - NUUANU

Hokulani Elementary	Kaahumanu Elementary
Kaiulani Elementary	Kapalama Elementary
Kauluwela Elementary	Kawananakoa Middle
Kuhio Elementary	Lanakila Elementary
Lanakila District Park	Likelike Elementary
Liliuokalani Elementary	Lunalilo Elementary
Maemae Elementary	Makiki District Park
Manoa Elementary	McKinley High
Neal Blaisdell Center	Noelani Elementary
Nuuanu Elementary	Pauoa Elementary
Roosevelt High	Royal Elementary
Stevenson Middle	Washington Middle

KALIHI - PALAMA - MOANALUA - PEARL HARBOR

Aliamanu Intermediate	Dole Middle
Farrington High	Kaewai Elementary
Kalakaua Middle	Kalihi Kai Elementary
Kalihi Uka Elementary	Kalihi Valley District Park
Kalihi Waena Elementary	Linapuni Elementary
Makalapa Elementary	Moanalua High
Moanalua Middle	Pearl Harbor Kai Elementary
Puuhale Elementary	Radford High
Red Hill Elementary	Salt Lake Elementary

**HALAWA - AIEA - PEARL CITY**

Aiea District Park	Aiea Elementary
Aiea High	Aiea Intermediate
Halawa District Park	Kaleiopuu Intermediate
Kanoelani Elementary	Lehua Elementary
Momilani Elementary	Palisades Elementary
Pearl City High	Pearl City Highlands Elementary
Highlands Intermediate	Pearl Ridge Elementary
Waiau Elementary	Waimalu Elementary
Webbing Intermediate	

WAIPAHAU - EWA BEACH

August Ahrens Elementary	Campbell High
Ewa Elementary	Honowai Elementary
Ilima Intermediate	Kaimiloa Elementary
Pohakea Elementary	Waipahu Elementary
Waipahu High	Waipahu Intermediate

MAKAKILO - KAPLEI - MAKAHA

Kamaile Elementary	Kapolei Elementary
Leihoku Elementary	Maili Elementary
Makaha Elementary	Makakilo Elementary
Mauka Lani Elementary	Nanakuli Elementary
Nanakuli High and Intermediate	Waianae Elementary
Waianae Intermediate	

WAIALUA - SUNSET BEACH

Waialua High and Intermediate	
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KAHUKU - KANEOHE - WAIMANALO

Ahuimanu Elementary	Benjamin Parker Elementary
Castle High	Enchanted Lake Elementary
Heeia Elementary	Kahaluu Elementary
Kahuku High and Intermediate	Kailua Elementary
Kailua High	Kailua Intermediate
Kainalu Elementary	Kalaheo High
Kaneohe Elementary	Kapunahala Elementary
King Intermediate	Lanikai Elementary
Maunawili Elementary	Pope Elementary
Puohala Elementary	Waiahole Elementary
Waimanalo Elementary and Intermediate	

CENTRAL OAHU

Hanalani Schools	Helemano Elementary
Iliahi Elementary	Kipapa Elementary
Leilehua High	Mililani High
Mililani Uka Elementary	Mililani Waena Elementary
Wahiawa Elementary	Wahiawa Intermediate



Emergency Kit. (A recommended guideline by Oahu Base Support Battalion (OBSB))

Food Items:

- Food (sack lunch type) for two family meals
- A 72 hours supply of baby food/formula if required
- One gallon vacuum-type water jug, or canteen per person, per day

Toilet Kit:

- Soap and hand towels
- One roll of toilet tissue or large box of facial tissue
- Sanitary napkins
- Disposable diapers, if required
- Bottle of baby oil, if required
- Can of baby powder, if required

Clothing (per person):

- Two pair of socks
- One change of underwear
- One serviceable jacket or outer coat (water repellent)

General Items:

- One wool blanket per person
- One utility knife, with miscellaneous attachments (e.g., spoon, fork, can opener)
- Flashlights with extra batteries

- Battery lamp with extra batteries
- Plastic eating utensils, to include cups
- Pocket knife

First aid kit containing:

- One bottle of disinfectant
- Pair of scissors
- Roll of 1" adhesive tape
- Two rolls of 1" gauze



Miscellaneous Items:

- Sewing kit
- Currency—\$50
- Cigarette lighter with flints and fluid or matches
- Battery operated radio with extra batteries
- Extra glasses, if required

Personal Papers:

- Insurance Policies
- Immunization/shot records
- Special prescriptions, if required

This list shows some suggested items. Put your kit together based on your individual family needs.

Some suggested food items (unopened) Food (Shelf Life in months)

Non-fat dry milk (6)
Canned Meat (12-18)

- Tuna
- Beef Stew
- Chili w/beans
- Salmon
- Vienna Sausage
- Spam
- Corned Beef Hash
- Deviled Ham
- Chunked Chicken
- Assorted Soups

Canned Fruit/Vegetables (12-18)

- Peaches, pears, pineapple, fruit cocktail, seedless raisins, peas, corn, beans, etc.

Cereals/Baked Goods (12-18)

- Instant hot cereal
- Cold cereal
- Rice
- Cookies

Sugar/Sweets (18-24)

Miscellaneous (8-24)

- Instant drinks
- Instant coffee/tea
- Salt/pepper
- Mustard/catsup
- Peanut butter

Additional Food Items:

In addition to items in the packaged "ready kit", a minimum of three days supply of nonperishable food (preferably canned, ready-to-eat) should be maintained in your quarters for emergencies.

POVs:

A car should be kept in good running condition, with the gas tank 1/2 full at all times. Gasoline pumps are generated by electricity and power could be out for a long time.

Pet food:

Keep in mind that pets are not allowed in the shelters, but they do need to be taken care of. Be sure to leave a good supply of food and water out for them. If you have questions about what to do with your pet during an evacuation, contact the Hawaii Island Humane Society at 946-2187.

Think long term!



Petroglyphs and Pictographs.

Written by CL Steenfott

Petroglyph images and descriptions are used with permission from John Flynn, a metalsmith and jewelry designer. You can visit his site at <http://www.kahiko.com/>. Thanks John!

Petroglyphs are designs or figures scratched or carved into cliffs, boulders, stones, or other hard surfaces using stone tools.

Pictographs are generally understood to be designs painted or drawn on a rock or other surfaces by using natural substances from the earth such as clay (ochre). In Hawaii, figures were also drawn on *kapa* (tapa cloth).

Petroglyphs and pictographs have been discovered in many places throughout the United States to include AZ, CA, CO, HI, KS, MO, MT, NM, OH, SC, TX, UT, and WY just to name a few. They have also been discovered in other parts of the world like Canada, Central America, Europe, Asia, Africa, Australia.

Red Ochre: A natural mineral consisting of silica and clay owing its color to iron oxide. It is found throughout the world, in many shades. The pigment has good hiding power, is quick drying, and is permanent in all media.

The pictures or drawings depicted are often of humans and animals and are generally considered to be forerunners of our written language. They were used to communicate a thought or idea and only details necessary to communicate the idea are included in the drawings.

Some researchers also believe that they may have been used as memory aids, religious, ritualistic, or historical recordings, story telling and even map making.



Honu - Sea Turtle—The Hawaiians respect the sea turtle for its ability to return home after roaming hundreds of miles. The turtle represents the navigator in Hawaiian culture.

There is little more than speculation and “ascribed meaning” to go on when it comes to deciphering the meaning of some of these etchings or paintings, but in some cases there is good reason to attribute a specific meaning to them. There are Native American legends, which have been passed down through the generations that point to meanings for some images, many of which are similar from tribe to tribe. “Kokopelli” for example, (the hunchbacked flute player shown here) is identified by many different tribes and nationalities. Kokopelli is widely believed to be a fertility symbol, roving minstrel or trader, rain priest, hunting magician, trickster, and seducer of maidens.



In some cases historical fact and relative dating have offered clues. For example, the *Supernova Pictograph* at Chaco Canyon is reported to depict a cosmic explosion, which gave rise to what is now the Crab Nebula in 1054 AD. This same pictograph appears to allude to Halley’s Comet. To read more about it go to: http://www.hao.ucar.edu/public/education/archeosides/slide_20.html



Rainbow Man. Rainbow man and rainbow woman might represent kahuna. Kahuna is a priest, sorcerer, magician, minister, wizard

Still other figures can be better identified by using known information based on location. For example, in Hawaii you will find drawings or etchings of the *Rainbow Man* (or Woman), *Honu* (sea turtle), *He’e nalu* (Surfer), or others that are indicative of the life and lifestyle in Hawaii. Some examples are included here for your enjoyment.

The Big Island is known to have the largest concentration of petroglyphs in Hawaii, but there are some on the other Islands as well.

Representatives from the *Bishop Museum* state that there are petroglyphs on O’ahu, located along the Waialua trail near the shupua’a boundary of Wahiawa and Waipio.

When visiting one of these historic sites remember that these works are a part of our history and are held sa-

cred by the locals. Treat them with respect. Some of the most spectacular images have been closed off from public access because of their frailty and the tendency of some to destroy what they do not understand, either through malice or stupidity.

Family, birth, children and family related figures predominate in many petroglyph fields, especially at Puu Loa. There’s a cave at Puu Loa with thousands of piko’s. (Piko - belly button, a hole in stone where a child’s umbilicus is placed.)



Some other places to look for information on this topic:

The Bradshaw Foundation - A non-profit making organization dedicated to the study, recording and protection of rock art. <http://www.bradshawfoundation.com/>

Trust for African Rock Art (TARA) - Aims at creating public awareness about the wide distribution and variety of rock paintings and engravings throughout Africa. <http://www.tara.org.uk/Homepage.htm>

The Upper Midwest Rock Art Research Association—Dedicated to publicizing the petroglyph and pictograph research being conducted in the Upper Midwest of the United States. <http://www.tcinternet.net/users/cbailey/>



Kukini - Runner, a swift messenger—The Hawaiian system of trails and roads is still in use today. Kukini often carried important news. Sometimes they even carried snow from the top of Mauna Kea to the shore to cool the ali’i.



I’a - Fish, any marine animal. Fish and seaweed were critical sources of food. They are the only source of calcium, iodine and other minerals on these volcanic islands.



Ancient Hawaiian Culture and Legend

Written by Paul Waters of Kauai, HI and used with permission.
Thank you Paul. <<<http://www.paulwaters.com/>>>

When one speaks of ancient Hawaiian culture, one of the first things to come to mind may be the "Kapu" system. The social order of old Hawaii was defined by very strict societal rules, do's and don'ts, and the transgressor paid with his or her life. Every crime was a capital offense, stepping onto the chief's shadow, fishing out of season, were indeed paid for with one's life. Acquittal was possible if he or she could reach a pu'uhonua (place of refuge) and be cleansed as well as exonerated by a kahuna (priest). The pu'uhonua was especially important in times of war as a refuge for women and children as well as warriors from the defeated side.



The focal point of Hawaiian social order and kapu was the ali'i, or royal class. From this high born group came the ruler-caretakers of the isles. Some ruled well, some did not. Some would only venture out at night so as to lessen the possibility of their subjects unintentionally breaking various kapu against them. Others did just the opposite, inflicting the kapu system upon the people for no reason.

Kamehameha the Great (1758-1819) is remembered as a very wise and powerful ruler. He was responsible for uniting all of the islands into one great kingdom under his leadership. He was also the last to rule under the ancient kapu system. Just months after death, his wife Ka'ahumanu and son Liholiho abolished the old laws forever.



The kahuna were both spiritual counselors as well as political advisors to chiefs such as Kamehameha. Hawaiian tradition speaks of Pa'ao a light-skinned kahuna who came from either Kahiki (Tahiti) or some say Upolo, Samoa. He engineered the overthrow of a very harsh chief named Kamaiole. Pa'ao brought Pili Ka'ai'ea from his homeland to renew the Hawaiian royal class. Pili Ka'ai'ea became the new high chief, it is from him that Kamehameha descended.

Along with introducing the new line of ali'i, Pa'ao also strengthened the awareness of the war god Ku, and probably initiated the practice of human sacrifice, as well created more elaborate heiau's than were previously known. A kahuna might also be a doctor, craftsman, artist or even a farmer. Specialists in a great many fields were kahuna, as long and disciplined training were required to be kahuna kalai (master carver), kahuna niho (dentist), kahuna 'upena hana (master fishnet maker).

No books or charts were used to teach the haku mele ula (master of chants & music) but thousands of lines of verse could be chanted. No sextant, compass nor radar were available to kahuna ho'okele, yet by reading flying birds, shape, color and size of clouds, the stars and wave movements guided his canoe or fleet through thousands of miles of open ocean.

Kahuna attributed their creative skills as an inheritance from the

'amakua (ancestral spirits) and the higher gods. Along with the ali'i and commoners they showed their gratitude by presenting offerings at shrines and heiau (temple) as well as worshipping before sacred pohaku (stones), and wooden ki'i (images).



Many striking rock formations on Oahu are ancient sites. A number of these are the subject of legends. According to tradition, they represent individuals who were turned to stone, or serve as the dwelling place for a spirit or god.

Pohaku whether the tiny 'ili'ili or the megalith pali (cliff) boulder was a very large part of ancient Hawaiian religion. Offerings for the local deity were left at pohaku sites. Some stones were used by kahuna in conjunction with spiritual or religious practices, others served as border markers for land division. The pohaku stood in the landscape as a physical reminder of the spiritual threshold.

Some pohaku were known as ko'a (fishing shrines), having been used to locate special fishing grounds. A ku'ula was a smaller stone said to hold a spirit that helped the fisherman. The ku'ula was said to speak to the fisherman in his dreams, directing him to finding the location of the stone itself, and then if well cared for the fisherman would then be rewarded with good fishing and a healthy life. Jagged or porous stones were considered female, smooth finer grained stones, male. Usually dark stones were male, lighter were female.



*"The surf rises at Koolau
Blowing the waves into mist,
Into little drops,
Spray falling along the hidden harbor.
There is my dear husband Ouha,
There is the shaking sea, the running sea of Kou,
The crab-like moving sea of Kou.
Prepare the awa to drink, the crab to eat.
The small konane board is at Hono-kau-pu.
My friend on the highest point of the surf.
This is a good surf for us.
My love has gone away.
Smooth is the floor of Kou,
Fine is the breeze from the mountains.
I wait for you to return,
The games are prepared,
Pa-poko, pa-loa, pa-lele,
Leap away to Tahiti
By the path to Nuumealani (home of the gods)
Will my lover (Ouha) return?
I belong to Hono-kau-pu,
From the top of the tossing surf waves.
The eyes of the day and night are forgotten.
Kou has a large konane board.
This is the day, and to-night
The eyes meet at Kou."*

This chant about the surfrider Mamala was translated from Hawai-

(Continued on page 122)



(Continued from page 121)

ian. This is the story...

Kou was a noted place for sports and games of chiefs long ago. East of Kou was a pond with a beautiful grove of coconut trees belonging to the chief, Hono-kau-pu. In this area was the finest surf waves of old Honolulu, this surf bore the name of Ke-kai-o-Mamala (The sea of Mamala) When the waves were high, it was known as Ka-nuku-o-Mamala (The nose of Mamala).

Mamala was a chiefess of kupua character, meaning that she was a mo-o, or gigantic lizard, as well as a beautiful woman. She was able to assume whichever shape she desired, one of the legends says that she was a shark and a woman, and had for her husband a shark-god, Ouha.

Mamala and Ouha played konane on the large smooth stone at Kou,

and drank awa together. Mamala was known as a very skillful wave rider, the people on the beach would respond with applause over her athletic feats.

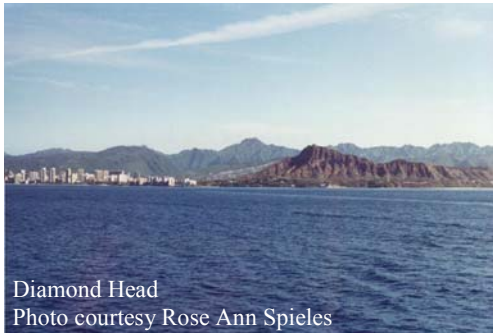
The chief of Hono-kaupu chose Mamala as his wife, so she left Ouha to live with her husband. Angry, Ouha tried to injure both of them, but was driven away. He fled to Ka-ihi-Kapu where he appeared as a man offering shrimp and fish to the women of the area. The shrimp and fish escaped his basket, and the women ridiculed the god-man. Ouha could not endure the shame of this, and cast off his human form becoming the great shark god of Waikiki.

I would like to note that if a chant was said wrong or sung off key, this too was a capital offense.



Diamond Head Crater. By CL Steenfott.

One of Hawaii's most famous landmarks is an extinct volcano located off of Diamond Head Road Between Makapu'u Avenue and 18th Avenue in Honolulu.



Diamond Head
Photo courtesy Rose Ann Spieles

Diamond Head was formed by a short series of explosive eruptions thousands of years ago. Originally given the name Mt.

Leahi by the

Hawaiians it was dubbed Kaimana-Hila or Diamond Hill after some explorers discovered what they thought were diamonds. These were later found to be calcite crystals. Over the years the name has been changed to Diamond Head; a name recognized around the world.

In 1904, Diamond Head was purchased by the Federal Government and designated for military use. Considered the ideal site for military defense, gun emplacements were constructed in 1908 and an entry tunnel was built through the north wall of the crater from Fort Ruger. Over the years other military features were added and Diamond Head was ready to defend O'ahu against attack, but no artillery was ever fired from Diamond Head during war.

These fortified emplacements have become a popular tourist attraction and are well worth the short hike to most visitors.

Paths for the hike are well defined, but in addition to the meandering path up the side of the crater, there are three sets of steps and one set of spiral stairs as well as narrow

dark tunnels through old war bunkers before you reach the observation station at the top. The trek is about (0.7) 7 tenths of a mile uphill and so the length of time you'll need to set aside depends on your pace, but for most it takes about 45 minutes to an hour to traverse the hill.

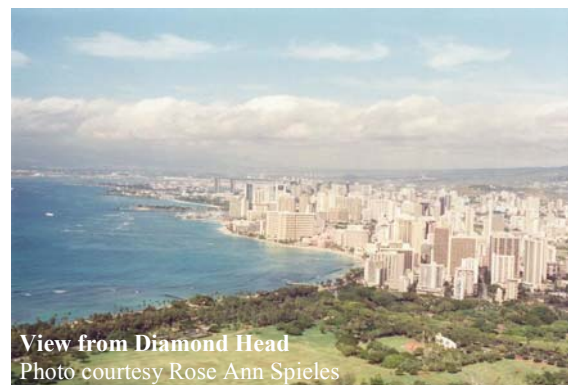
Rest a spell when you reach the top and take in the amazing view. You can see Waikiki and Honolulu and I'm told on a good day you can see the Island of Molokai.

After you come back down consider having a picnic on the lawn in the center of the crater.

Restrooms and water fountain are located near the parking lot. Be sure to take water, a flashlight, and camera with you.

Park gates open 6 a.m. to 6 PM Get there early to beat the rush and the heat. Cost is \$1 per person.

Sources: Department of Land & Natural Resources Division of State Parks and the State of Hawaii Website at <http://www.state.hi.us/>



View from Diamond Head
Photo courtesy Rose Ann Spieles



Cemeteries on Oahu.

Nanette Purnell is the founder of "*The Cemetery Research Project*" (1985) and Hawaii's foremost authority on graveyards, documents unrecorded records of burials on Oahu. She says, "*Cemeteries are full of stories. I try to find out as much as possible about who's buried where in Hawai'i, and the story behind their death.*"

Using this knowledge she gives walking tours and lectures in the community on the following cemeteries day or night: Oahu Cemetery, Manoa Chinese Cemetery, Moiliili Japanese Cemetery and Makiki Cemetery. For the tours that take place during the day, she focuses more on the historical information. For the night tours, she talks more about how the people died.

Normally Ms. Purnell doesn't tell spooky stories during her tours because she does not want to make people afraid of gravesites, but, just for the sake of Halloween, she makes an exception.

"My whole mission in life is to encourage people to visit gravesites and not to be afraid of them," she said. "I don't want to spook them out. I try to show them the beautiful and interesting side of graveyards."

If you are interested in taking a tour with Nanette Purnell, contact her at 261-0708.

Oahu Cemetery

2162 Nuuanu Ave **Location:** (north of Judd St.)

Phone 808/538-1538

Free admission—**Hours:** Daily 7am-6pm

There are approximately 73 graveyards on Oahu, but by far the most historic is the Oahu Cemetery. Founded in 1844, it is the oldest public cemetery in Hawaii.

Frommer's ©1999 IDG Books Worldwide, Inc. states that it's... "not Hawaii's oldest, or even its biggest Cemetery, but this 150-year-old, 35-acre cemetery is a burying place in America's rural, monumental tradition. It holds the earthly remains of Honolulu's "Who's Who"—advisors to kings, sugar barons and sea captains, musicians and missionaries, were all buried in a re-claimed taro patch on the outskirts of the mud-and-grass-thatch village that they helped transform into the city of Honolulu. Under shade trees beside old carriage trails are Damons, Judds, and Thurstons, the missionaries who stayed on in the islands; and patriarchs of Hawaii's first foreign families, whose names now appear on buildings and street signs: Blaisdell, Dudoit, Farrington, Magoon, Stangewald, Wilder. . . A few grave markers give sketchy details of death: A British sea captain spilled from his horse; a 9-year-old girl drowned off Kauai; a Boston missionary, the victim of consumption; an Army private killed while looking for a leper in Kalalau. It's all there, carved in stone, obituaries and grim reminders of mortality.

Other notable people buried there:

- Ellison S. Onizuka (Lt. Colonel, USAF) (1946-1986)
- Alexander Joy Cartwright, Jr. (1820-1892)
- Lucy Parrish (1842-1930)

The gravesite of world famous aviator Charles Lindbergh is located near the town of Hana on the Island of Maui.

For information on other cemeteries do a search at: *Find-A-Grave:* www.findagrave.com

For information on famous, infamous, and political people go to: *The Political Graveyard:* <http://politicalgraveyard.com/geo/HI/HO.html>



National Aeronautics and
Space Administration
Lyndon B. Johnson Space Center
Houston, Texas 77058

Ellison S. Onizuka (Lieutenant Colonel, USAF)
NASA Astronaut (1946-1986)

NASA EXPERIENCE: He first flew as a mission specialist on STS 51-C, the first Space Shuttle Department of Defense mission, which launched from Kennedy Space Center, Florida on January 24, 1985. During

the mission Onizuka was responsible for the primary payload activities. Discovery completed 48 orbits of the Earth before landing at Kennedy Space Center, Florida, on January 27, 1985. With the completion of this flight he logged a total of 74 hours in space.

LTC Onizuka was also a mission specialist on STS 51-L, which was launched from the Kennedy Space Center, Florida, at 11:38:00 EST on January 28, 1986. The died on January 28, 1986 when Challenger exploded 1 min. 13 sec. after launch.

**Alexander Joy Cartwright, Jr. (1820-1892)**

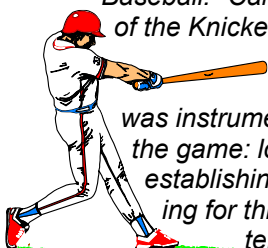
"The father of Modern Baseball"

- Developed game's system of rules.
- Elected to Hall of Fame in 1938.

Information in the following section has been used with permission from Alexander Cartwright, IV, the 2nd great-grandson of Alexander Joy Cartwright, Jr. Please visit "Mr. Baseball's" website at <<<http://www.mrbaseball.com>>>. Information on this website is Copyright © 1998 Mr. Baseball. All rights reserved. Last updated June 17, 2001.

The Office Site of the *Baseball Hall of Fame* has the following to say:

Alexander Cartwright is called "The Father of Modern Baseball." Cartwright was a founding member of the Knickerbockers Base Ball Club of New York, the very first baseball club, organized in 1845. Cartwright was instrumental in forming the early rules of the game: locating the bases 90 feet apart, establishing nine players as a team, providing for three outs per side, setting an unalterable batting order, and eliminating throwing the ball at a runner to retire him.



According to legend, Abner Doubleday invented baseball in 1839 at Cooperstown, New York, but this story has since been thoroughly disproved. Baseball was never really "invented"; it evolved. Young Americans had played the old English game of Rounders and several similar games since the 1700s. Those games gradually metamorphosed into baseball as we know it today, and Cartwright had an important role in that evolution.

In the radical new game that Alexander Cartwright and his friends devised in 1845, there were several noticeable differences from today's game... for instance, they caught the ball barehanded, fortunately the ball was a lot lighter (and slightly larger) than the one we use today and it contained a large core of India rubber which made it very bouncy... there were no called balls or strikes, the batter could just stand at home plate and wait, all day if he had to, until he got a pitch he wanted to swing at... and a ball caught on the first bounce was considered an out.

It was called the Knickerbocker game or the New York game, and yes, it differed in several respects from what we now know as baseball...but nevertheless it was definitely the basis for the game we play today.

THE DAY BASEBALL WAS BORN

On June 19, 1846, just across the river from Manhattan, at Elysian Fields in Hoboken, New Jersey, the first baseball game ever played between two organized teams took place. Alexander Cartwright's Knickerbocker club took on a team called the New York Nine... the game, which was played under Cartwright's rules, lasted four innings and Cartwright's team lost by the score of 23 to 1... with Cartwright umpiring the game!

CARTWRIGHT GOES HAWAIIAN

Within the span of a mere two and a half decades after Alexander Cartwright Jr. introduced baseball to the world, at Elysian Fields in Hoboken New Jersey, on June 19, 1846, the new game had spread like wildfire all across the North American continent... people had begun playing it in small towns and large cities everywhere, and the first professional league had even been formed in 1871... exactly 25 years later.

Yet Alexander Cartwright was not around to witness how popular this little game of his would become. On March 1st 1849, after bidding goodbye to his wife Eliza and their four children, and promising to send for them, he joined up with a group of friends and set out on a journey to the California goldfields.

He took a few balls and bats along with him on the excursion, and became kind of a baseball Johnny Appleseed, planting the seeds of the game across the land. At many of their rest stops Cartwright and his party spent their leisure time playing baseball. He is said to have taught the game to miners, storekeepers, Indians and white settlers at frontier towns and Army posts all along the way.

After spending only five days in San Francisco, Alexander decided to go even further westward and he jumped aboard the Peruvian sailing ship, *Pacifico* that was heading for the Sandwich Islands (later known as Hawaii). And that's where Alexander Cartwright spent the rest of his life... in the tropical paradise of the Hawaiian Islands.

Alexander Cartwright died in Honolulu in 1892, at the age of 72. He is well remembered in Hawaii, as the man who brought baseball to the islands... In Honolulu there is a Cartwright Street and a small ballpark called Cartwright Field, both named in his honor, and a bronze plaque dedicated to him hangs at City Hall.

It is said that in 1939, when Babe Ruth was visiting Honolulu, he placed a flower lei on Cartwright's grave.



Lucy Parrish (Mrs. L. Davis Parrish) (1842-1930) was a *Titanic* Survivor.

The British luxury passenger liner *Titanic* sank on April 14-15, 1912, en route to New York City from Southampton, Eng., during its maiden voyage. The vessel sank with a loss of about 1,500 lives at a point about 400 miles (640 km) south of Newfoundland (Halifax, Nova Scotia).

The great ship, at that time the largest and most luxurious afloat, was designed and built by William Pirrie's Belfast firm Harland and Wolff to service the highly competitive Atlantic Ferry route. It had a double-bottomed hull that was divided into 16 presumably watertight compartments. Because four of these could be flooded without endangering the liner's buoyancy, it was considered unsinkable.

Shortly before midnight on April 14, the ship collided with an iceberg; five of its watertight compartments

were ruptured, causing the ship to sink at 2:20 AM April 15.

(Source: *Encyclopædia Britannica*)

Lucy Parrish, of Deer Lodge, Montana was one of the *Titanic*'s Second-Class Passengers rescued by the *Steamship Carpathia*

when the *Titanic* sank and in 1930, died at her home in Haole, Ewa, Hawai'i. She is reportedly buried in the Oahu Cemetery in Honolulu.

For more information visit: <http://titanic.gov.ns.ca/>

This web site was produced in cooperation with Economic Development and Tourism, Halifax Regional Municipality and Maritime Museum of the Atlantic.



Photograph of a lifeboat carrying *TITANIC* survivors - National Archives and Records Administration

Hawaiian Fun Facts.

- The tallest mountain in the world from base to summit is located on the island of Hawaii. The dormant volcano Mauna Kea measures over 30,000 feet tall when measured from its ocean base to summit, several hundred feet higher than Mt. Everest in the Himalayas.
- Hawaii was originally called the Sandwich isles. The great English navigator Capt. James Cook so named the islands in 1778 in honor of his patron the Earl of Sandwich (who is also credited with creating the edible sandwiches).
- Kamehameha the Great is the only Hawaiian monarch whose final resting place is still a mystery. After his death his loyal retainers hid his remains and never revealed their whereabouts to another living soul.
- Writer Herman Melville worked as a pin boy in a Honolulu bowling alley during the mid-1840's. It was during the height of the whaling years for Hawaii that a young Melville came to Honolulu to collect experiences for his future literary masterpieces.
- The only Royal Palace on American soil is located in Honolulu. The Iolani Palace was built by King David Kalakaua in 1882 at a cost of just under \$ 360,000 dollars.
- The world's first revolving restaurant was the La Ronde Restaurant atop the Ala Moana building fronting the Ala Moana shopping center. (The restaurant has since closed down.)
- The world's tallest ceramic mural is located on the side of the Hilton Hawaiian Village Rainbow Tower in Waikiki. The mural is 30 stories high.
- Hawaii is the largest consumer of Spam in the United States. Last estimates site over 10,000 cans of Spam are consumed everyday in Hawaii.
- The only reported wild Kangaroos in the US are found in Hawaii. Descendants of an escaped pair of wallabies continue to flourish in the mountains behind Honolulu.

